Lectures
ON
DISEASES OF THE LACRYMAL APPARATUS.

Delivered at the Royal College of Surgeons.

BY HENRY POWER, F.R.C.S.

LECTURE II.—PART I.

GENTLEMEN,—Having already in former lectures given a full description of the canaliculi and lacrymo-nasal duct, and an account of the various explanations that have been given of their action in conducting away the tears, it is unnecessary that I should enter into any details in regard to their anatomy and physiology, and I proceed at once to to the consideration of the causes that lead to Epiphora, Mucocele, and Dacryoblennorrhœa, apart from disease of the Bones, which I propose to consider in the next lecture.

Epiphora signifies an overflow of tears; and a distinction was formerly drawn between epiphora, which was held to be an overflow of tears from excessive secretion of the lacrymal gland, and stillicidium lacrymarum, which was considered to result from some obstruction to the flow of tears through the natural passages into the nose. The distinction has, however, in course of time been lost, and the signification confounded; and in most reports of cases the term "epiphora" is now applied to an overflow of tears from any cause whatever. The symptoms presented in an ordinary case are well known. The eye or eyes, for it is sometimes double, gradually fill with water, which collects and trembles at the inner canthus or lacus lacrymalis, and at length falls over the cheek or is wiped away with a characteristic action of pressure by the patient. No pain is felt, but the greater angle of the eye, including the caruncle and border of the lids and the conjunctiva, is more vascular than normal, and is tender to the touch. Close examination will sometimes show a little clear mucus or puriform mucus exuding from the orifices of the puncta, and the quantity of this may be increased by pressure on the sac. In this state it may remain for years without leading to further mischief, being regarded only as a troublesome and unpleasant affection, interfering to some extent with vision, since the tear before it overflows extends along the edge of the lower lid and produces deformed images by unequal refraction. Even in this mild form recovery is a rare event. It has a tendency to perpetuate itself. The overflow of tears inflames the lids and produces the same kind of eczematous eruption that is seen after the protracted application of water dressing; and this, again, thickens the lids and everts or inverts the puncta, whilst it tends to occlude their lumen. In more serious cases, and in cases that have lasted long, the lacrymal sac becomes distended with fluid, which sometimes can and sometimes cannot be made to empty itself by pressure, the former condition constituting blennorrhœa of the sac, the latter mucocele.

The causes of epiphora are very various, and it is of importance to recognise them: because, in the first place, an accurate knowledge of the cause may often enable us, by effecting its removal, to cure the patient; and, secondly, because, if neglected, it may easily pass into inflammation of the sac and duct, and so produce a lacrymal abscess and fistula. The causes of epiphora may be divided into three groups—those which promote increased secretion of the lacrymal gland, those which prevent the entrance of the tears into the ducts, and those which prevent their passage through the ducts, the obstruction in the latter case being either at the puncta in the course of the canaliculi, lacrymal sac, or nasal duct; each of these requires consideration.

There are certain conditions in which epiphora may almost be regarded as normal. It must have been observed, for example, by everyone on sudden exposure to cold air, since the stimulus to the branches of the fifth pair distributed to the conjunctiva causes so large an increase in the secretion by reflex action that the minute conduits are unable to take it up and convey it away, even with all the assistance that can be given of partially closing the lids to diminish the surface exposed, and of frequently winking to aid the descent of the tears into the duct. Again, when the eyes are suddenly exposed to bright light after being long kept in darkness, a similarly increased secretion is observed by reflex action through the optic nerve. And still again, the changes in the lids that are concomitant with the advance of age lead, it may almost be said naturally, to epiphora. The flabby skin of the lower lid, with its feeble circulation, easily becomes œdematous, and by its mere weight falls away from the eyeball; the puncta are no longer immersed in the layer of fluid passing over the conjunctiva, and a tear collects at the inner angle, which, together with the contracted pupil, give the aspect of dreaminess and dulness to the face characteristic of age. The eyes no longer (as Milton expresses it) "sparkling blaze." Nor did this change escape the notice of Shakspeare, when he makes the Chief Justice, in rating Falstaff, say, "Do you call yourself young that are writ down with all the characters of age? Have you not a dry hand, a moist eye?"—in addition to those other unmistakable signs of an increasing belly and a decreasing leg. An abundant overflow of tears is always produced in health by the entrance of any foreign body between the lids and its contact with their edges or with the conjunctiva. Such a discharge is, in fact, the natural mode by which such bodies are washed away. Lastly, amongst the natural conditions which lead to epiphora we may mention mental emotions, of which pain and grief occupy the foremost place.

A cause of epiphora that was long overlooked, but is now universally recognised, is error of refraction in the eye. The most common defects which in this way lead to epiphora are undoubtedly hypermetropia and astigmatism, and the explanation is sufficiently clear. The hypermetropic eye is fitted for country or out-door pursuits. The Arab or the Peruvian has little need for the exercise of his accommodation. For him long or far sight is essential to enable him to follow his occupation as a hunter, and to recognise friend or foe on the distant horizon; but when such eyes are compelled by the exigencies of civilisation to work upon near objects, some exertion of the ciliary muscle is required. The necessary work is followed by exhaustion, and the conjunctival and ciliary vessels become surcharged with blood; their tone is impaired, and increased secretion takes place not only from the main gland, but from its accessory portion and from the glands of the lids, and epiphora results.

Another cause of epiphora that is very common in practice, and constitutes the link between those which merely produce increased secretion of tears and those which prevent the escape of the tears by the canaliculi, is infarction of the Meibomian glands. This condition is very common in gouty subjects. In these the eyelids are seen to be rosy and full of blood, and on examining the mucous membrane the colour is found to be much deeper than natural, whilst here and there particular follicles of the Meibomian glands may be observed to be full and prominent; sometimes they are covered with the epithelium, but occasionally they may be found jutting out like grains of sand, and then produce intense discomfort and epiphora. In such cases they may be picked out with a needle, and resemble little fragments of coral. When there are one or two of these, many other enlarged gland follicles may be seen, the contents of which gradually and only very slowly work their way out. Not only do the asperities of these bodies induce increased secretion of tears, probably of altered quality, but by thickening and inflammation of the lid the puncta and canaliculæ become occluded, and the drainage of the tears is seriously interfered with.

Eversion of the eyelids is a common cause of epiphora, and acts by causing the puncta to separate from the globe, so that the puncta are no longer immersed in the fluid collected in the lacus lacrymalis. The numerous causes therefore which lead to ectropion lead also to epiphora—such, for example, as ciliary blepharitis, the cicatrisation consequent upon wounds and burns; tumours of the eye or orbit; hypertrophy of the connective tissue near the canaliculi, which has been noticed by Desmarres; swelling of the caruncles; papilloma, epithelioma, and syphilitic and rodent ulcers about the inner canthus.

Inversion of the lids is not less influential than ectropion, though it acts in a precisely opposite manner, the deviation in position of the border of the lids causing the puncta to be so closely applied to the globe that the tears, the secretion

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of which is greatly increased by the irritation occasioned by the cilia, can no longer make their way into the ducts. This condition may be sometimes artificially induced by the application of bandages for many consecutive days in cases where there is slight separation of the lips of the wound after cataract operations. The whole lid in such cases becomes swollen, the compressive bandage keeps the margins turned in, and the cilia rub against and irritate the already congested and inflamed conjunctiva. MM. Galezowski and Naudier have described a peculiar kind of conjunctivitis, termed by them "lacrymal conjunctivitis," which they recognise as the consequence of the prolonged retention of the tears in the sac, and which calls to mind the opinion held by Boerhaave and many of the older writers of an increased acrimony of the humours. There can be no doubt that such conjunctival inflammation has a tendency to perpetuate itself and induce epiphora, since it is accompanied by the secretion of much mucus, which may be seen sticking about the orifices of the puncta, towards which it gravitates, and must seriously interfere with the passage of fluid into the ducts through the puncta. The same conditions may lead to partial ectropion, as well as to entropion.

Many cases of epiphora arise from injury near the inner canthus, involving the puncta, canaliculi, or sac. When such injuries have occurred, the greatest possible care should be taken in readjusting the edges of the lids with accuracy, so that the canaliculi should remain pervious. I remember seeing a child who had received an injury with the ferrule of an umbrella, which had been thrust at him in play. The surgeon who had been called in had applied a suture bringing the parts together with accuracy enough for all ordinary purposes; but lacrymation followed the accident, and on examination I found that the laceration had divided the canaliculus just on the inner side of the punctum. I reopened the partially closed wound, passed a fine probe through the punctum and distal part of the canaliculus, and with a little trouble found and passed the probe into the proximal segment. The edges of the lids were then accurately adapted, and perfect recovery resulted.

Epiphora occasionally results from congenital absence or atresia of the puncta. Swan Burnett[1] gives an instance, and states that only three cases are on record in the periodicals devoted to ophthalmology.[2] Mooren (Fünf Lustra) only noted one case in 108,416 patients. Zehender has described two cases, and Hugo Magnus two more. In Burnett's case all the puncta were impermeable. Except that of the right upper lid, which possessed a small channel, there was no watering of this eye, a sufficient proof that the upper puncta and canaliculi discharge an active function. In Zehender's case the left upper punctum was alone pervious. In Magnus's cases both lower puncta were absent, and there were no papillæ. In treating his case, Swan Burnett thought it better to search for the canaliculus than to attempt to open the punctum. He therefore made a vertical incision with scissors through the margin of the lid about two millimetres to the inner side of the papilla. He then searched, by means of a No. 2 Bowman's probe, for the canaliculus, and had no difficulty in finding it. The canaliculus was then slit up, and the epiphora promptly disappeared. Obliteration of the puncta has been occasionally observed as a consequence of the cicatrisation of a small-pox pustule. Thus Pellier de Quengsy relates a case in which he was called to see a girl at Perpignan who had suffered for some time from severe epiphora consequent on small-pox, which had been neglected on the supposition and anticipation that it would recover naturally as soon as the catamenia appeared.

Epiphora is sometimes caused by the entrance of a cilium into the punctum. I have had two cases under my care quite recently. In each the hair was one of the small colourless cilia, and it had entered root foremost, so that only the fine transparent apex protruded. Care should be taken, in removing it, that it is not broken, and it may be stated that the resistance it offers to extraction is more considerable than might be expected, perhaps owing to the ridges on the surface of the hair, and perhaps in part to contraction of the muscular tissue around the canaliculus. The displacement of one or more hairs is a frequent cause of lacrymation. I recently saw a woman aged forty who had experienced lacrymation for a twelvemonth, and in whom a mucocele had developed in the course of three weeks on the right side. On examination two hairs were found to have become inverted at the inner canthus, which irritated the conjunctiva, and caused a circumscribed redness of it. The lacrymal gland was enlarged, and presented a conspicuous swelling beneath the mucous membrane when the upper eyelid was raised. The enlargement appeared to me to be the result of reflex irritation. This led to constant hypersecretion of tears, which led again to constant distension and consequent atony of the walls of the lacrymal sac. Great improvement resulted from removal of the hairs. Monoyer[3] gives a case in which a woman, aged twenty-five, whilst throwing an ear of barley into the air, felt something sharp enter the eye. She herself removed a portion of the awn, but continued to feel discomfort. M. Monoyer, on attentive examination, saw a small point projecting from the superior punctum. On seizing it with a pair of cilium forceps, he withdrew a fragment of the awn, 6 mm. long. Only one other case of this is on record—namely, one by Kneschke, who in 1836 observed a fragment of wheat in the inferior canaliculus. It has probably occurred frequently, but has not been deemed of sufficient importance to deserve record, and it is probable that the foreign body is pressed into the canaliculus by the finger of the patient in the endeavour to remove it by rubbing, and may occasionally be the foundation of other trouble.

[1] Knapp's Archiv, vol. xiii., 1884, p. 53.

[2] These are by Fick (Treatise on the Diseases of the Eye, London, 1823, p. 388. Ph. F. v. Walther, Lehre v. der Augenkrankheiten, 1849, Bd. ii., p. 205) and Desmarres (Traité théorique et Pratique des Maladies des Yeux, Paris, 1854, t. i., pp. 280, 281.

[3] Annales d'Oculistiques, t. lxvi., 1871, p. 279.

ABSTRACT OF THE

Inaugural Address

DELIVERED BEFORE THE

SANITARY CONGRESS,

Held at York, September 21st to 25th,

BY SIR T. SPENCER WELLS, BART., F.R.C.S.,
PRESIDENT OF THE CONGRESS.

I HESITATED for several days before complying with the flattering proposal of the Council of the Sanitary Institute to fill the honourable position of President of this year's Congress, and to address you this evening. Although a worker in collateral science and art, I could not presume to appear before a meeting of sanitary experts as an instructor, and I must beg you, while listening to me, to consider that we are all engaged in making a joint effort to draw general attention to questions of vital importance to the public health, to diffuse information, to get the people to take an intelligent interest in sanitary matters, and to bring the governing powers into a disposition to give more effectual help in carrying out such reforms as are proved to be necessary by scientific investigators. With the feeling that this is our mutual relation I may proceed; and if I trouble you with the reiteration of some truisms and the citation of facts already well known to many of you, I trust you will be patient with me, in the hope that some of the seed which may be sown broadcast to-night may fall upon fruitful soil, and, if good, may so multiply that it may be sown again and again by others, and in good time influence the multitude.

Any great sanitary improvement of the community must be the result of elaborate co-operation. We must have the combined action of the three great classes of investigators, legislators, and administrators before we can effect any good result. And if we regard sanitary reform in these three aspects, we find that a great deal of the work of investigation has been done, and that the work of legislation is lamentably deficient; while the work of administration cannot advance beyond the limits of legislation. As regards the work of investigation, we may safely assert that it has hitherto been for the most part personal, and that the waste of labour has been enormous. It is only of late that this Institute has come in aid. Three-fourths of the fifty years that Southwood Smith, Chadwick, Farr, and Trevelyan were at work, they were well-nigh single-handed. Perhaps the

foundation of such a body as the Sanitary Institute may be enough for them to be proud of; but more must follow, and it is to be hoped that before long we shall have, for the sake of life and health, an organisation as powerful as that which protects our property and our liberties. The Institute must develop into something grander and more powerful. The Colleges of Physicians and Surgeons have done and are doing much useful work; but the work is done more for the individual than the collective good. Without interfering with them—rather aiding them,—why should we not have a "College of Health"—a college which would show our appreciation of the gift of life and our reverence for the Giver?

When we speak of the prolongation of life, we think chiefly of the advantage to individuals, their better health, and their augmented power of enjoyment. This is a great deal. But it means more for the State. It may sound well to declaim against the money view of the subject as low and sordid; but it is not to be overlooked when we are apportioning merit for work done. A donation to the community of two or three millions would be looked upon as an extravagance. But what is the fact? During the forty-nine years that registration has been in force, and sanitary reforms have advanced with its annually increased information, about eight millions of people have been added to the population of the United Kingdom. We may fairly credit our reforms with a large proportion of this increase in numbers, and consequently of their money value. The result on human happiness is not a matter of calculation, but a future industrial census will show in a very definite shape the effect of sanitation in raising the economic value of the population. We cannot be far wrong if we put the average duration of human life in Great Britain half a century ago at about thirty years; now, according to the healthy life table, it is forty-nine years. The population in less than fifty years increased, as I have said, by some eight millions. Each individual of these millions was worth to the State, as is calculated, about £150. Say that only two millions out of the eight millions of increased numbers were the fruit of sanitary and medical work, their economical value was at least £300,000,000, and that a clear gain. To this we must add that the productive powers of the population depend on labour, and that labour depends upon health. Let sickness come, men are disabled, their labour ceases, and the produce of labour is lost. Formerly it was calculated that a twenty-third part of the population was constantly sick, and the products of all that labour for the time necessarily withdrawn. A great deal of this sickness has been altogether prevented, and the duration of that which comes in spite of sanitation is lessened. Happily did Richardson give form and expression to the proberb, "National health is national wealth!" and well may Froude follow with his paraphrase, "The *Commonwealth* is the *common health*, the common wellness," and add, "No nation can prosper long which attaches to its *wealth* any other meaning."

Since the formation of the Sanitary Institute, although the progress of sanitary science has not been as rapid as we desire, yet its advances have been more readily measured. The annual meetings, the presidential and sectional addresses, and the papers read in the sections, have brought important movements under notice; and as the Congress migrates yearly to new places, its information becomes more varied and trustworthy. We gather assurance of the generally improved moral and physical condition of the people. We find that infant mortality is lower; that education becomes more satisfactory as the principles upon which it should be conducted are better understood; that those who work are better paid, get wholesomer food, and dwelling-places more fit for human habitation. With all this encouragement we may look hopefully to the future and consider what are the most pressing subjects of inquiry, and which is the way of conducting our investigations that gives the greatest promise of success. The field is vast, but, as we have seen, it is not impenetrable; and obstacles are sure to yield to steady and well-directed attack. "What we want is a central power," as Lord Brabazon wrote last month in *The Times* (Aug. 30th), "which shall regulate and control local action, so that no town or locality shall be able to neglect the public health, or, in endeavouring to purify itself, shall poison its neighbour. We want a power which shall take a bird's-eye view of the whole question, and work not for the good of one locality only, but for the good of all." This is what we want, and what we must have some day. But, while we are waiting, an interim organisation of deliberative and administrative agency should be set up, as if a Ministry of Health were in power. The Local Government Board, too, with all its official completeness, like ourselves, may recomend, but cannot command. There seems to be a link missing between the knowledge of what is right and the power to apply it. This link is a Minister of Health. This Institute, united with the Parkes Museum, is bound, in my opinion, to induce all the others to make not only common cause, but joint action; or failing in this effort, it may, by increased activity, in a short time cover the ground which they now occupy. This would at once make plain the folly and waste of division. The process of amalgamation has already begun by the union of the Parkes Museum with our Institute. The National Health Society, the Ladies Sanitary Association, the Cremation Society, the Smoke Abatement Institution, and others of a like kind must follow; while such societies as that of the "Medical Men qualified in Sanitary Science" and the "Society of Medical Officers of Health" would find themselves more fitly placed and more usefully employed as sections of one united body than they now are. The active working of such a large group of philanthropic societies shows how constantly the interest in all sorts of sanitary measures has been increasing during the last twenty years, and how much it has been in the power of such feebly-supported societies to do. Our great effort at present ought to be the concentration of working power and its economical direction. With this object attained, it will not be difficult to explain the motives for special contributions, and to collect them from a public which seldom turns a deaf ear when appealed to rationally. There are many investigations which require much time, which cannot be conducted by individuals, and which are costly. The Institute, with adequate funds, could form its commissions, send out its health challengers, have its own laboratories, museums, deliberative councils, exponents, and consultants—and all this not interfering with, but rather in aid of, recognised privileges or established authorities.

In studying the various subjects to which the Institute has given attention, and the investigation of which it is still prosecuting, they may be conveniently arranged into five groups: 1, those which relate to the training and health of the population; 2, to their social comfort and well-being; 3, to the prevention of disease; 4, to the care of the sick; and, lastly, those relating to the disposal of human refuse and remains. Impossible as it is even to recall all these subjects to your minds, there are a few points upon which I cannot refrain from a word or two of comment.

1. So far as concerns the mental and physical training of children, and giving women the option of other occupations than those of domestic life, I see no great cause for alarm. It is an age in which education—at any rate for the middle classes—must be pushed far beyond the limits which our fathers thought wide enough for us. Mere rule-of-thumb work is almost out of date, and there are so many industries in which scientific knowledge and exactness are requisite, that the want of early education cuts off a young man's chances of advancement. To engage in most of the recent applications of steam power, electricity, magnetism, and chemistry—to be available in carrying out the complexities of engineering science—a workman must be something more than a mere machine. He must have head as well as hands—brain as well as muscle; and as uneducated brains are not worth more in the labour market than untrained muscle, we must be content to make some sacrifice in the culture. While we pity the few who fall in the struggle, we must remember that there is no chance for those who stand still. As for the outcry about the dangers from women taking up men's work, it is breath wasted. A great many failures will outweigh a few successes and bring the balance right. For my own part, I think women capable of a great deal more than they have been accustomed to do in times past. "To suckle fools and chronicle small beer" surely cannot be the chief end of woman. If overwork sometimes leads to disease, it is more morally wholesome to work into it than to lounge into it. And if some medical practitioners have occasionally observed cases where mental overstrain has led to disease of mind or body, I cannot deny that I also have at long intervals seen some such cases. But for every such example I feel quite sure that I have seen at least twenty where evils equally to be deplored are caused in young women by want of mental occupation, by deficient exercise, too luxurious living, and too much amusement or excitement. Again, we have heard much of late about over-pressure

from work in schools. This is one of the novelties of our time. No doubt it exists, and I think it may in part be traced to some of our sanitary success. We have reduced the mortality of early infancy. Many children who would formerly have died offhand are now saved, and find their way into the schools. They are the survivals of the least fitted. They live, but they are not strong—not so strong as the average. They have to submit to the same routine, and to be forced up, if possible, to the same standard as the rest. But the effort is too much for them. Their frames are not hardy enough to resist the mental strain. They show all sorts of nerve symptoms, disappoint the teachers, and are the types brought forward as victims of the system. The vice of the system is that it is indiscriminate. There is no revision of the recruits, and the tasks are not apportioned to the feeble powers of sanitary survivors. This is an evil which will remedy itself in time by the growing up of a larger proportion of strong children, and the present difficulty may be got over by a little patience and moderation—a little more regard to sanitary logic. The children must have training before education, and must be put upon something even less than a half-time system.

2. Of the many things which affect our comfort and well-being, some are national, some local, some residential. One of the most potent means of influencing the sanitary condition of a country is the judicious regulation of its forests. In Great Britain the Government all but ignores the subject of Forestry. There is no school for teaching the science. Every proprietor is obliged to shift for himself, or to seek foreign help. And yet by looking at the state of things in Upper India, Palestine, and Russia, we may see what mismanagement leads to. Almost everywhere, man's ignorance and recklessness has worked evil by destruction of the forests. He has deteriorated the condition of the climate, taken away the productiveness of the soil, brought on famine and pestilence.

3. In preventive medicine the great event of the year has been the publication of Pasteur's views on hydrophobia, and his treatment of it by inoculation. I must not anticipate the reports of commissions still sitting; but, in connexion with what I have previously said, it is worth bearing in mind that, astonishing as Pasteur's own personal work has been, he has all the way through been adequately seconded. He has found means and material forthcoming, suitable accommodation has been provided for his investigations, he has been buoyed up by judicious encouragement, and he has never been obstructed by legislative impediments. He has been a benefactor to his country and to the world in many ways, and his services have met with a just recognition. But we must not be too sanguine, form unreasonable expectations, and jump to irrational conclusions. As he himself wisely says, in speaking of his attempts to neutralise the poison of hydrophobia, we must wait and see the results of what has been done before we can test the value of the practice. I accept the principle upon which he acts, and believe that those who are following his lead may outrival him in the good they confer upon mankind.

4. Yet even if we were to realise the most enthusiastic visions of one of my most imaginative predecessors, and could cycle through the greater part of our century of life soundly and pleasantly, accidents must overtake some of us, and decay and infirmity must come sooner or later. This is a theme which gives play enough for intelligent thought. The rich, when sick, can afford the luxury of skilled attendance, and can hold out inducements enough for men of capacity to devote themselves to the study of medicine and surgery. But what are the poor to do? They can never alone, or without some aid or combination, afford adequate remuneration. Medical relief, as in legal phraseology it is called, is the first step to pauperism. Self-help in this matter is one of the first steps to independence. Provident dispensaries, giving members the right to attendance from medical men of their own choice at their own homes, the opening up of easy access by small money payments to the coveted advice of hospital staffs, and the foundation of clubs and cottage hospitals on sound principles, are among the best means of meeting the requirements of the sick poor. Our great establishments will always be needed for accidents and severe diseases, which there is no possibility of treating successfully in cramped and ill-supplied homes. But hospitals do not necessarily pauperise. The very poor can well accept the care in them as a gracious gift, while those who have something to spare always can, and sometimes do, make a thank-offering. On behalf of those who have had disease, who have been rescued from its immediate dangers and are in a state of convalescence, with appetite, strength, and spirits coming back slowly, and creating a craving for fresh air and a longing for the few idle days so necessary to perfect recovery, I wish to impress upon all who hear me the importance of convalescent homes. They are springing up in numbers, but more are wanted to complete the work of our City hospitals. Many patients come to them from the country and return well to the country. But what is a poor town cripple now to do when he is relieved, and hospital atmosphere bars his recovery of health? And now that the urban population is yearly augmenting in such a rapid manner, this necessity for providing for country convalescence is more and more urgent. The philanthropic sanitarian has something more to do than to fit up wards for the sick man to lie down in; he must see that in due time he may get the strength to 'take up his bed and walk.' If we cannot do miracles, we may complete our charity.

5. Even the best-regulated communities are encumbered with things which they must get rid of—human refuse, human remains. The one can be dealt with as best suits public convenience, but the other must be treated with reverence as well as security. As regards the question of the disposal of the dead, I may refer you to a lecture of mine, which has been placed in your hands, with remarks upon it by Sir Lyon Playfair, Dr. Cameron, Sir Joseph Fayrer, and Mr. Seymour Haden, with two of the last letters written by the best of the Shaftesburys. Public opinion has been veering round since the publication of the Charge of Sir James Stephen. A custom known to be not illegal will be adopted by many who have hitherto been deterred by the fear of illegality; and the Society which alone in England gives facility for it is ready to perfect its accommodation or to give place to any administrative body upon a wider basis.

When we come to speak of the question of Legislation, we, as sanitarians, find ourselves in the same plight as the rest of the world loaded with good intentions. The waste of time and energy in Parliament in party struggles has banished all possible home legislation. We must bide our time, assured that, when this crisis of angry discussion of political complications has passed, the turn will come for practical measures. We shall then settle down to a calm consideration of what is really wanted, shall have our chance of being heard, and probably get a good deal of what we ask for. Our demands will appear so reasonable, our work so useful, and our plans so feasible, that no committee will have the heart to suppress them, no Parliament the churlishness to refuse them. Only let us be prepared for the occasion, have our subjects chosen, our evidence forthcoming, our arguments marshalled, and our advocates ready. We shall have ourselves to blame if we do not make sanitary legislation the popular legislation of some sessions near at hand.

I have taken up a great deal of your time, and I must not presume much longer on your kind indulgence. But there is one matter which I must speak of before concluding, and that is the importance of our having the unsectarian assistance of all religious teachers. Sitting as we do here under the shadow of the hallowed Minster which is the crowning and significant glory of the ancient city of York, one cannot but recall to mind how for successive ages its ministers have been the benefactors of all who came within the sphere of their action. In times of ignorance, they spread light around them. In times of distress, they gave succour to the needy and shelter to the homeless. In times of sickness and pestilence, they were ever ready, at their own risk and peril, to visit either castle or cottage, with consolation for the troubled mind and remedies for the tortured body. And now, in these later days they, and others allied with them in the same holy work, come among us laymen, trained up by them in the spirit of Christian charity, to second our attempts to work the good of the people, to instruct themselves in the principles of our science, and to add the benefit of their wisdom and experience to our efforts, with as much zeal and devotion as were ever displayed by any of the bygone generations of their revered predecessors.

With such objects in view, actuated by the same spirit of good-will to mankind, and impelled forward by an equal energy, we may promise ourselves the attainment in due time of our desired end—that of contributing to the real and stable greatness of our country, by giving to it a healthy and long-lived population; for we may rest assured that, in the

words of Froude, "A sound nation is a nation that is composed of sound human beings, healthy in body, strong of limb, true in word and deed—brave, sober, temperate, chaste—to whom morals are of more importance than wealth or knowledge—where duty is first, and the rights of man are second—where, in short, men grow up and live and work, having in them what our ancestors called 'the fear of God!'"

THE ETIOLOGY OF TYPHUS FEVER,

ILLUSTRATED BY A SERIES OF RECENT OUTBREAKS IN DUNDEE AND NEIGHBOURHOOD.[1]

BY ROBERT SINCLAIR, M.D.,
PHYSICIAN TO THE DUNDEE ROYAL INFIRMARY.

ON February 20th, 1884, the last two cases of the typhus outbreak of 1883-84 were removed to the Dundee Royal Infirmary, and for the next seven months Dundee was free from typhus fever.

Outbreak No. 1.—About the middle of September, 1884, a Glasgow tramp arrived in a very poor and densely populated district known as the Bog of Lochee, about two miles[2] from the centre of Dundee. The houses in the bog are one-storeyed; the population is about 200. This man was laid up for about a fortnight with a feverish attack. He was seen only once by Dr. Watt, who found him feverish, with a dusky aspect, but no rash. The case was not reported, but Dr. Watt now thinks the man had typhus. There were three other adult occupants of the house of one room and a closet, and they remained well; but on October 2nd a boy who lived two doors off in the same row was seen by Dr. Watt, who found him complaining of sickness, vomiting, and general pains. On the following day, the sixth of the illness, a typhus rash was seen. Two days later he was found to have pneumonia, and on the eleventh day he died. His brother soon after had pneumonia, but not typhus. A woman in the same row of houses had typhus within a fortnight after the boy who died. Dr. Watt heard of three other cases of febrile illness in the same district and about the same time, but they did not seem to be sufficiently severe to require medical attendance.

Outbreak No. 2.—Mrs. M——, aged thirty-two, resided with her husband and three children in a single room in Miller's Pend, one of the most densely populated parts of the West Central District, and about a mile and a half from the scene of the preceding outbreak. She sickened of a febrile disease about the middle of December, 1884, two months after the last authenticated case of the Lochee outbreak. She did not fully recover for over five weeks. The disease was not recognised as typhus, and she remained at home. Her husband took ill on Jan. 10th, 1885, was sent to the infirmary under my care on the 22nd, and went through an attack of typhus. About the same time his youngest child, ten months old, sickened of a fever and remained at home. A week after the admission of the head of this household to the infirmary the family removed to 11, Milne's East Wynd, a little further west in the same district. About the middle of February the two remaining children, and one who, though he lived with his grandmother in Littlejohn-street (Central), frequently visited his father's house, sickened, and on the 25th of the same month they were all admitted with typhus. On the same day a girl who lived in the same close was admitted with typhus. Two days previously two girls who lived in the same district a few hundred yards off, but who were in the habit of spending their evenings in the infected tenement, and doubtless caught the infection there, were admitted. On April 7th a man and a girl, and on May 21st a boy, who lived in the same close, were sent to the infirmary with well-marked attacks of typhus. T. B——, aged thirty-one, 7, Parker-street (Central), half a mile distant from this centre, sickened on April 10th, and was admitted with typhus on the 17th. There was no fever in the neighbourhood of his house, but he had been collecting rents at 11, Milne's East Wynd, where he doubtless caught the infection.

Outbreak No. 3.—The disease next appeared in Peebles-lane, Lochee, about 250 yards from the Bog, but fully three months after the last case occurred there. Mrs. F——, aged fifty-five, was seen in Peebles-lane, Lochee, by Dr. Alexander, who wrote to me: "The woman was neither fed nor clad, and all her surroundings were quite calculated to invite an attack of typhus. How she contracted the disease I am not so clear, but I am quite certain she had *typhus gravior*, and that it and nothing else disestablished her." No connexion could be traced between her illness and the cases in the Bog or in Dundee. She lived a very solitary life, in very bad sanitary conditions.

Outbreak No. 4.—On Jan. 28th, P. M'L——, aged twelve, one of five occupants of a single room in Well-road, Butterburn, on the extreme northern boundary of Dundee, and at least a mile distant from the previous outbreaks, was reported. She was removed to the infirmary next day, and went through a typical attack of typhus. She had not been visiting any house in which there had been illness. After her removal to the infirmary a female friend went to occupy her place in her mother's room. She sickened on Feb. 19th, was removed on the 25th, and had an equally typical attack.

Outbreak No. 5.—On Feb. 7th, Mrs. D——, aged thirty-four, was reported to have typhus, and next day she was removed from her house at 44, Lilybank-road (East), fully a mile distant from the previous cases. It was subsequently ascertained that in a neighbour's house in the same close, which she had frequently visited, the father and a child had been ill of supposed influenza. The mother of the head of this house also visited them frequently. She took typhus and died. On Feb. 10th Mrs. S——, the neighbour at whose house Mrs. D—— visited, and from which she caught the infection, was admitted with a well marked attack of typhus. The S—— family of three occupied an attic room, and no one of them had been visiting any house in which there was illness of any kind whatever. Indeed, these were the first febrile illnesses in the vicinity for a long time.

Outbreak No. 6.—Mary McD——, aged sixteen, 2, Lyon's-close (West Central), a mile distant from Lilybank-road, one of six occupants of two rooms, took ill on Feb. 23rd, was removed on the 27th, and went through a well-marked attack of typhus. After a very exhaustive inquiry, I failed to find the slightest connexion between this and any case of typhus or illness of any kind.

Outbreak No. 7.—Mrs. F——, aged forty-two, resided with her husband and seven children in a small low-roofed room, with a closet opening off it, in Ramsay's Pend (West Central), a few hundred yards from Lyon's-close. In March, 1885, she was in bed for three weeks. The case was not reported, but it was very probably typhus, overlooked. She had not been in contact with any fever patient so far as she knew; and, indeed, she was not likely to be, for she rarely left her own house. Subsequently sixteen persons belonging to five families residing in the same close were attacked. All of them were infected directly or indirectly by her. Although all the houses were not equally overcrowded, there can be no doubt that the smaller offenders suffered by their juxtaposition to the more serious transgressors of the laws of health. The cases were all removed between April 6th and 18th, and no fresh outbreak has occurred, although the district is one of the worst in Dundee in respect of personal cleanliness, house sanitation, and overcrowding. Nurse H——, Fever Wards, Dundee Royal Infirmary, sickened on May 16th of typhus contracted while nursing this batch of patients.

Outbreak No. 8.—R. L——, aged nineteen, resided with a married brother and his wife in an attic house of two apartments, at 3, Mitchell-street, half a mile distant from Ramsay's Pend (North-west). He sickened on March 24th, and, while feeling very ill, he removed to 6, Littlejohn-street (Central) on the 27th. On the 31st he was sent to the infirmary, and went through a well-marked attack of typhus. There was no fever of any kind in Mitchell-street, and this patient had not been, to the best of his knowledge, in contact with any fever patient; but he had certainly been insufficiently fed for some time before his illness began. C. P——, aged thirty-six, the only occupant of a single commodious room immediately above the house in which the preceding patient lived for four days, at 6, Littlejohn-street, sickened on April 14th, and was admitted on the 20th. This woman had had ample food, had been subjected to no depressing conditions, and had not to her knowledge been exposed to infection. She assured me that she had not been in any house but her own for months previously; but exactly fourteen days before her illness began the preceding patient had been removed to the infirmary. He lived in a

[1] Read before the Forfarshire Medical Association.

[2] This distance, and the distances which follow, were supplied to me by an official in the Burgh Surveyor's office.

house on the ground floor of a tenement entering directly from the close. C. P——, therefore, and every person who entered or left any house in the tenement, were obliged to pass this door; and it is very likely that this woman got infected there. No other cases were traced to this source; but in the middle of July—i.e., four months later—a man who lived in the same close as R. L——, in Mitchell-street, but on the first floor, sickened of enteric fever, was admitted on Aug. 3rd, and went through a four weeks' attack. L——'s was the first and last case of typhus, and this man M——'s was the first one of enteric fever in this neighbourhood during the year 1885. But it was speedily followed by four other cases in Polepark-road, which immediately adjoins Mitchell-street. I make no attempt to revive the obsolete doctrine of the identity of typhus and enteric fever; but I would venture to bring under notice the interesting fact of the outbreak of these two specific fevers in the same close without any ascertainable connexion with previous cases, but in the midst of conditions which cannot be described as anything like sanitarily perfect.

Outbreak No. 2.—John S——, aged eleven, resided at the New Mill of Gray, near Invergowrie, about three miles and a half from Dundee. A family of eleven persons live in an isolated, clean, dry, comfortable, and, as I can personally testify from an unexpected visit, well-ventilated house of six apartments. The boy slept with a brother in an ordinary sized, airy bedroom. The house is thirty feet distant from the steading, in which, by the way, I could see no objectionable feature. According to Dr. Stewart of Liff, who sent the boy in as a case of enteric fever, there had been no fever in the family or the neighbourhood for some time, except one case of enteric fever at Whitelawston, three quarters of a mile off. With this place, however, there had been no communication. The boy was admitted on June 20th, 1885, and was placed in one of the medical wards. On the third day after admission and the twelfth of the illness, I became satisfied that a rash, which had been present more or less since admission, was a typhus one, and he was removed to a previously cleaned and disinfected typhus ward, of which he became the sole occupant. The occurrence of this case in an isolated farmhouse; the long duration of the fever, twenty-six days, without complications; the early abdominal pain; the diarrhœa, set agoing by a dose of castor oil, and lasting four days; the tenderness in the right iliac fossa,—strongly suggested that Dr. Stewart's diagnosis was correct. But, on the other hand, the temperature during the seventeen days the fever lasted after admission was persistently of the typhus type, except, indeed, on the last day, when the morning temperature was normal and that of the evening 102·4°; the aspect, odour, and rash were as clearly typhus as they could be, and the convalescence was of the usual speedy uninterrupted character. But if there was any room to doubt the inference drawn from the clinical history, it was speedily removed by the illness of Nurse S——, one of the infirmary nurses, who attended the preceding patient during the three nights immediately succeeding his admission, while he remained in a medical ward; and eleven days later, while he was the sole occupant of a typhus ward, she looked after him for a few hours during the absence of the fever nurse. On the latter occasion she opened the door and looked to see that he was all right a few times, and once she went to his bed to put on his blankets, which he had thrown off during sleep. She had never seen a typhus patient in her life; there was no other case in the house at the time; and generation *de novo* is here quite out of the question, as all the nurses in the infirmary are well housed, well fed, and get ample time for out-door exercise, which they are obliged to take. She sickened on July 11th, exactly twenty-one days after her first exposure to the infection, and ten days after the second; the mottling was obvious on the fifth day; the rash was well out on the sixth; on the tenth day of her illness it was noted—"Rash copious for last three days over body, legs, arms, and hands; petechial on some parts." On the thirteenth day the evening temperature was 102·4°. Next day (the fourteenth) the morning temperature was 99·4°; in the evening 99·8°. On the fifteenth day it became normal, and remained so. In fact, it was a typical case of fourteen days' typhus.

The diagnosis of typhus in both these cases being unassailable, and the belief that the nurse was infected by the boy being equally so, how did he contract the disease? One thing is certain: it was not manufactured in his clean and comfortable home. Did he get it from an infected person or dwelling? When I mention that he sometimes delivered milk in Dundee for his father, it will no doubt be suggested that he may have got it in the course of his errands. But let us remember that the boy sickened on June 12th, and that all the known cases of typhus were in the infirmary fifty-three days earlier, with the single exception of J. S——, who was not removed from Milne's East Wynd until May 21st, twenty-two days earlier. But the boy's district for delivering milk was in Perth-road and Hawkhill; he never went beyond the middle of the streets going north from the latter—i.e., he was never within 570 yards of the only case of typhus known in Dundee fully three weeks before he sickened. There is another possible explanation, but it is one which may not be very readily accepted. The farmhouse is on the low ground, fully half a mile below the Dundee Royal Asylum, the sewage of which passes into a cesspool between the two houses. Of the construction of this cesspool I know nothing. But whether the whole or only part of the contents were meant to overflow, overflow it did, and carried large quantities of putrid sewage into a small stream that passes close by the farmhouse, and converted it into a foul ditch, whose thick, black, offensive contents sometimes stagnated, sometimes flowed lazily along. The boy had occasion to pass along the banks of this open sewer on his way to the asylum with milk every day, and he stated that on two or three occasions towards the end of May—i.e., between two and three weeks from the beginning of his illness—he drank from some of the less muddy parts of this uninviting stream. If there is anything in the doctrine that typhus can be generated from human filth, it might well be generated under these circumstances. Doubtless the cutaneous and pulmonary exhalations are the usual vehicles of the poison, and doubtless the human beings and their noxious excreta were not under one roof, as is usually found in typhus. Both, however, were in existence. The poisonous sewage of the hundreds of human beings in the asylum did no harm there, but it was carried outside and worked its mischief elsewhere. Two facts may be mentioned in support of my contention that the stream was poisonous, although they may not prove that it contained the specific virus of typhus fever. The fishes with which it abounded sickened and died about the same time; and the farmer's seventeen cows, which had remained perfectly well all winter and spring, were no sooner put to graze in a field adjoining the burn, from which they no doubt drank, than they all sickened, and only eleven recovered. Mr. Black, the veterinary surgeon who attended the animals, tells me they had rigors, dulness, loss of appetite, irregular rumination; pulse at first frequent and full, later on feeble and thready, in the fatal cases; temperature 102·5° to 105·3°; abdominal pain from beginning; constipation at first in all; diarrhœa in one case without, in the others only after, linseed oil; evacuations dirty, yellow, and offensive. Acutely ill from five to seven days.

(To be concluded.)

THE TREATMENT OF LUPUS BY LOCAL APPLICATIONS.

BY DR. P. G. UNNA, HAMBURG.

THE treatment of lupus by local applications is, theoretically and practically, perhaps the most important of all the more recent advances in the therapeutics of skin diseases. Even were we in a position to detect, by means of highly developed physical methods, the masses of lupus tissue in the healthy skin whilst they were still microscopically small, and then to destroy them without injuring the surrounding structures, the question would nevertheless constantly arise as to whether we could not obtain the same good results by the elective destructive action of some chemical agent on the new growth without so much wearisome and laborious surgical work. A further inducement to the study of this question would be the great desirability of a better knowledge of the chemical reactions which take place between the parasites and the various remedies which are used to cope with them—a problem which would presumably be better solved when the process takes place under our eyes, as in the case of the skin, than it could be by simply observing the results obtained by the treatment of internal organs. No one doubts, for example, that the

curing of an old obstinate patch of eczema by means of a rightly-devised chemical agent is a better process than its destruction by the thermo-cautery. Just in the same way, the treatment of lupus by medical applications is more attractive and more instructive than is a purely mechanical treatment. And the latter, with the exception perhaps of the total excision of quite small patches, is never sufficient to ward off recurrences, however thoroughly and carefully it may have been carried out. Not only, therefore, are attempts to transform the treatment of lupus into one of medical applications justifiable, but we are compelled, both in the interests of our patients and for the widening of our knowledge, to pursue this study further.

Using a strong salicylic acid plastermull[1] in order to remove the cuticle and prepare the lupoid tissue for other more destructive agents, I observed that the salicylic acid preparations alone exercised a most beneficial influence on the new growth, and that if the quantity of the acid contained in the plastermull was sufficiently large, not only was the horny layer separated from the whole patch of skin, sound and unsound, but that the tubercles themselves were destroyed and removed, the only trace of them left being some punched-out looking holes. An elective action of that sort has been well known since the days of arsenic pastes, and has clearly been explained by Binz and Schulz (*Monatshefte für prakt. Dermatologie*, Bd. i., Heft 1). I had personally obtained like results by the use of plastermulls containing arsenic and mercury, sublimate and ichthyol, and occasionally simple mercury; but in no case was the action so quick, strong, finely shaded, easily and surely regulated; nor were the little pits so clearly and sharply cut out, the healthy interstices left so entirely untouched, and the skinning over after throwing off of the affected portion so straightforward as after the employment of salicylic acid.

The next step was evidently to try the effect of salicylic acid alone on a long series of lupus cases, without assistance from any of the other remedies ordinarily used, especially arsenic, mercury, pyrogallol, and ichthyol. The one difficulty which was here encountered was the unavoidable *pain* caused by the acid; for whilst its application to thickened horny masses is almost entirely free from any painful sensations, when applied to thin epidermis, and still more to raw surfaces, the pain is really very considerable, and always lasts as long as the plaster remains on. It increases, unfortunately, in direct ratio with the quantity of the acid contained in the plaster. Thus a plastermull containing 50·0 grammes of salicylic acid is distinctly more efficacious than one containing 40·0 grammes per metre; but the pain which is produced is also proportionately greater. This, with the fact that the pain is a lasting one, constitutes a serious drawback to the use of this drug, and one which an attempt must be made to overcome if this treatment is to compete practically with other methods.

In the various cases of lupus which have come under my treatment during the last year, I have attempted to effect this in different ways, and after many failures have at length arrived at a satisfactory result. The agents which I applied successively in combination with the salicylic acid, and in each case to several patients, in order to lessen the pain, were: mercury, iodoform, cocaine, opium, extract of cannabis, chloral-hydrate, and creasote. Of these, I found opium (pure and extract of opium), extract of cannabis, and creasote alone useful. Even cocaine, on which I set the greatest hopes, proved to be entirely useless in the form of plastermulls to overcome the lasting pain produced by salicylic acid. Opium and cannabis upheld their old reputation, since the patients without exception allowed that there was a lasting diminution of pain. Still, they left much to be desired, for the plasters burnt as strongly as the simple plasters for one or even two hours before the anodyne effect developed. When it once began, the relief was certainly considerable, and lasted as long as the plaster was applied; but even with equal quantities of the acid and the anodyne painlessness could not be attained, and still greater quantities would manifestly be required to produce it.

[1] "Plastermulls" (*Pflastermulle*) consist of a very thin sheet of guttapercha, coated on the right side with an adhesive substance (alumin. oleinic.) containing one or more medicinal substances and backed on the other side with mull (undressed muslin). "Salvemulls" (*Salbenmulle*), which are more soothing preparations, consist of ointments having a base of benzoated suet and lard, spread upon mull. They are all manufactured at my suggestion by Mr. Beiersdorf, 40, Wohlers Allée, Altona (near Hamburg).

Comparing these two narcotics on corresponding regions (e.g., the cheeks) of the same patients, I found that there was no striking advantage in either of the substances. The plasters both caused considerable pain for some time, which certainly diminished greatly, but never completely disappeared. I was therefore compelled to decide between these narcotics on external grounds, and here I found that the cannabis indica undoubtedly possessed advantages over the opium. It is, in the first place, particularly adapted to the plaster form, the cannabis plasters having a dry varnished surface of excellent adhesive power, and keeping well. The hemp extract also works up better than that of opium, and takes up large quantities of salicylic acid, which is technically rather difficult to manage.

The high price of plastermulls containing such large quantities of alkaloids (e.g., 10·0 or 20·0 grammes of extract per metre) induced me to make further experiments with cheaper materials, which could be prescribed without stint. With this object I tried creasote, mainly on account of the experience of the dentists, who have made use of it for many years for its anæsthetising properties. My expectations of it were so far exceeded that since my acquaintance with its power in this respect I have ceased to seek for any other correctant of the pain caused by the salicylic acid in cases of lupus. The first experiment with a plastermull containing 10·0 grammes of salicylic acid and 10·0 grammes of creasote (true, pure, beech-tar creasote is alone serviceable) sufficed to show me that we had in it an excellent, probably the best, anodyne for dermatological purposes. In this case, too, a period of sharp burning pain preceded a stage in which the pain was greatly diminished, but the first lasted only ten minutes, and the anæsthesia which followed was very marked, as was the case with the alkaloids. A still better result was obtained, when the creasote was doubled in amount (salicylic acid 10·0 grm., creasote 20·0 grm.). The two periods still existed, but during the first, which lasted only five or ten minutes, there was a manifest diminution of the pain, and the second period was completely painless. The same observation was made with plastermulls containing a larger quantity of salicylic acid and double the weight of creasote (e.g., 20·0 grm. of salicylic acid and 40·0 grm. of creasote). Here, too, is a short painful stage, which lasts, according to the susceptibility of the individual, between five and fifteen minutes, but during which the effect of the caustic gradually decreases, and then follows a period of painlessness, which continues uninterruptedly as long as the plaster remains on, and corresponds to the continued paralysis of the nerves of the skin by the creasote. Plastermulls containing 10·0 grammes of the acid per metre suffice for ordinary cases of lupus of the cheeks and nose; the thinner the epidermis and the better supplied with capillaries a tissue is, the less salicylic acid is required. But other conditions are presented where small lupoid nodules are deeply embedded in old sclerosed scars, produced by a long treatment with caustics and galvano-cautery, as well as in the case of that warty form of lupus (papillomatous, Aubert; verrucosus, Riehl), which occurs on the hands and feet, and which I showed some years ago to be clinically and histologically identical with the so-called anatomical tubercle (verruca necrogenica, Leichentuberkel) of anatomists and butchers—a conclusion which was doubted at that time, but which has since been proved to be correct through the discovery of the tubercle bacillus in it by several observers. Here a plastermull, containing 30 and even 50 grammes of salicylic acid per metre, is necessary on account of the abnormally increased thickness of the epidermis.

Mr. Beiersdorf (40, Wohlers Allée, Altona,) has, upon my suggestion, composed the following five plastermulls for the cure of lupus. Each roll (length 1 metre, breadth 20 centimetres, equal to ½ sq. metre) contains—

Salicylic acid.		Creasote.
10·0 grm.	... ...	20·0 grm.
20·0 „	... ...	40·0 „
30·0 „	... ...	50·0 „
40·0 „	... ...	40·0 „
50·0 „	... ...	50·0 „

Anyone wishing to avoid, from the first change of the plastermull, the painful first period after its application, and in this way to institute a completely painless treatment for lupus, may paint the raw surface with a 4 per cent. aqueous solution of cocaine ten minutes before applying the second plaster. For this short anæsthesia cocaine is as

efficient as it was found useless in attempting to produce a lasting diminution of the pain, in addition to the salicylic acid. But creasote is, to my mind, not only the morphine of the skin; it has another special value in the treatment of lupus—its antiseptic power. It is not only a correctant of the salicylic acid, but also the best adjuvant we could find. At least, excepting cod-liver oil, I know of no anti-tuberculous remedy in which I have so much confidence as in good beech tar creasote.[2] In any case of this phthisis of the skin, with which we are now concerned, it is a remedy which, applied in the concentration and in the manner indicated, deserves every consideration. This supposition has, moreover, been proved in practice to be correct. The salicylic creasote plastermull is a remedy which brings about a cure of lupus without any extraneous aid. The strongest plaster necessary for the case should always be employed at the commencement, since at first a relatively normal skin-surface has to be attacked; under these the lupus tubercles can be seen to soften and break down. The action can be accelerated, as is the case with all plastermulls, by covering them with hot poultices. The dressing should be changed once, or at the most twice, daily, with or without the application of cocaine, and the parts cleaned, according as the susceptibility of the patient will allow it, with linimentum calcis, oil, lard, or even with soft-soap and hot water. As soon as it is found that with this simple treatment the excavations are getting shallower, and that no new ones are appearing, we may assume that the whole of the lupus nodules have fallen out. It is then advisable to have recourse to weaker salicylic-creasote plastermulls, and finally, when the lupus seems to be totally destroyed, but the process of skinning over is sluggish and a quicker completion is wished for, to still weaker means, such as mercurial-carbolic or zinc-salicylic plastermulls, or to a simple healing remedy like iodoform, ichthyol, &c. Smaller and more isolated nodules are generally completely cured under the salicylic-creasote plastermulls, even those which are richest in salicylic acid. In general, I consider it better to let the strong plastermull lie somewhat longer than is apparently necessary, so as to give a chance to even the deepest-lying nodules to shell out, and for the same reason the plaster should overlap the edge of the lupus patch by at least half an inch.

This is the simplest possible form of the treatment of lupus, but it can of course be further developed and enriched by combining it with other methods according to the individual case. These various modifications, which cannot all be mentioned here, do not alter the original idea, which consists in keeping up a continual but never excessive exfoliation of the affected portions by means of a highly elective substance (salicylic acid) which destroys the weaker tissue of the new growth, whilst a second substance (creasote) renders the process painless and at the same time exercises a directly destructive action on the bacilli.

A by no means slight advantage of this process of treatment is the cosmetic improvement which it effects, for in this concentration the salicylic acid assists powerfully in removing old stringy and lumpy scars, and after every removal of the scabs which it produces the surface is found to be in a distinctly smoother condition. On the other hand, it leaves sometimes a longer-lasting redness, which probably results from a paresis of the capillaries or from the destruction of the stratum granulosum, the layer which causes the white tint of the skin. This is best met by using an ichthyolic ointment or by painting on a zinc-ichthyol-gelatine preparation afterwards.

[2] I have seen the best results in cases of chronic phthisis from its persistent use for months and years in the form of keratinised pills (Dünndarmpillen) and inhalations.

BEQUESTS.—By the will of the late Mr. Little, of Fremont, West Derby, £5000 is distributed among the charitable institutions of Liverpool, the chief recipients being as follows:—Royal Infirmary, £500; Northern Hospital, £500; Royal Southern Hospital, £500; Infirmary for Children, £300; Home for Incurables, £200; Woolton Convalescent Hospital, £100; Eye and Ear Infirmary, £100; Dental Hospital, £100; Hospital for Consumption, £100; Hospital for Cancer and Skin Diseases, £100; North Dispensary, £100; and South Dispensary £100. All the legacies are to be paid free of duty. The late Mr. John Holdship, of London, has, subject to a life interest, bequeathed a sum of £10,000 to such hospitals in Middlesex and Surrey as his executors shall in their discretion select.

THE HISTOLOGY OF AINHUM.

BY C. H. EYLES, L.R.C.P. & S. EDIN.,
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THE affection known as "ainhum"[1] may be described as an attempt at spontaneous amputation of the toe; the little toe is the one usually affected, but in fifty of Silva Lima's cases the condition was met with five times in the fourth toe;[2] and in a specimen shown me by a friend it is a finger that is affected. The disease is usually described as one of negroes; but Crombie[3] and Crawford[4] have met with it among Hindus. It begins as a furrow at or near the digito-plantar fold of the little toe; and as this furrow gains in depth it extends laterally, its extremities ultimately meeting on the dorsal aspect. In the meanwhile the toe becomes swollen, and ovoid or globular; till, when the constricting furrow is completed, it resembles a marble attached to the foot by a short, narrow, fibrous pedicle, which may be severed by a snip of the scissors. In about one-half of the cases the furrow sooner or later becomes the seat of painful ulceration, which hastens the process. Some idea of the length of time required for the completion of the furrow may be formed from the fact that in one case, eighteen months after the extremities of the furrow had appeared on the dorsal aspect, they were still apart by a distance equivalent to about one-half the breadth of the toe. As a rule the Fanti does not apply for treatment except for the ulceration; the removal of the toe he manages for himself; hence, though the condition is common, material for examination is scarce. My remarks are based on the examination of two toes: in one, for which I am indebted to my colleague Mr. F. W. Sullivan, the furrow was complete, but the seat of ulceration and the pedicle was still bony; the other was an advanced case, the toe being attached by a narrow fibrous pedicle, and here also the sides and bottom of the furrow had ulcerated.

Method.—Both specimens were preserved whole; the first in methylated spirit for five months, and the second, after being first hardened in Müller's fluid, was transferred to methylated spirit, in which it remained for three months. For the examination of soft structures strips of tissue about one-sixth of an inch thick were cut down to bone, stained *en masse* in picro-carmine or eosine, and ribbons of sections were cut from this out of paraffin. When it was advisable to use logwood, unstained sections were cut, fixed to the slide by Threlfall's method,[5] and stained in logwood and eosine. In the whole of the first, and in the distal parts of the second, of these toes there was bone, which was first decalcified in Kleinenberg's picric acid solution, and then treated as in the case of soft structures.

The histological changes occurring in ainhum may be described as a hyperplasia so far as the epidermis is concerned; for the remainder they are mainly inflammatory. Judging from the two specimens I have been able to examine, the changes would seem to advance from the constriction to the tip; accordingly, for descriptive purposes, I shall divide the toe into three parts: *anterior*, where the changes are beginning; *middle*, where they are more or less in operation; and *posterior*, where they have been completed. These are, of course, purely artificial divisions; and while, generally speaking, certain changes occur in each, it is not unusual to find patches in the anterior part as advanced as those in the middle, and *vice versâ*.

Epidermal changes.—As a whole, the terms of the description of the epidermal changes occurring in lupus given by MM. Cornil and Ranvier[6] may be transcribed to represent what is seen in ainhum:—"Sur les coupes examinées au microscope et colorées, soit au picro-carminate, soit á la safranine, on peut s'assurer d'abord que les couches épidermiques sont plus épaisses qu'a l'état normal. Le reseau papillaire est généralement très développé, de telle sort que les papilles, saillantes, plus ou moins allongées et irrégulières,

[1] Said to be derived from a negro word meaning "to cut." Hirsch: Handbuch der Historisch-geographischen Pathologie, Bd. III., S. 504.
[2] Hirsch, loc. cit.
[3] Trans. Path. Soc., vol. xxxii., p. 302.
[4] Edinburgh Medical Journal, vol. xxxi., p. 1120.
[5] Foster and Balfour: Elements of Embryology, 2nd edit., Appendix, Note B.
[6] Manuel d'Histologie pathologique, 2me ed., tome II., pp. 846-7-8. The description is repeated *verbatim* in Cornil and Babes' "Les Bactéries," 1st ed., p. 621; and so is the figure.

sont séparées les unes des autres par des prolongements ou colonnes interpapillaires du corps muqueux qui pénétrent profondement. Le derme est infiltré de petites cellules ainsi que les papilles. ..... Lorsqu'on examine le détail des coupes du lupus avec de forts grossissements, en passant successivement de la superficie á la profondeur, on voit d'abord que l'épiderme est le plus souvent épais; dans la couche cornée on constate des stries colorées en rouge par le carmine. Le stratum lucidum, la couche granuleuse sont épaissis ainsi que le corps muqueux. ..... Dans les prolongements interpapillaires du corps muqueux, il existe quelquefois des globules de cellules cornées. Les papilles irrégulières, quelquefois très allongées et pointues, le plus souvent hypertrophiées dans tous les sens, présentent beaucoup de cellules migratices et des cellules fixes tuméfiées."

All these changes are readily found in ainhum, and this hypertrophy of the epidermis may be demonstrated to the naked eye by staining a strip of tissue in logwood, when, the dermis and subdermal structures staining deeply and the epidermis either faintly or not at all, the latter is thrown into relief; and measurement shows that while at the tip of the toe it is barely one millimetre thick, it gradually increases in depth till near the constriction it may measure as much as five millimetres. And further, on viewing a mounted and stained section with the aid of a hand lens (an eye-piece, inverted, serves as well), though in the anterior and middle parts especially there is hypertrophy of the interpapillary processes, the great bulk of the thickening is found to consist of the horny layers of the epidermis.

Microscopically, one finds that the deepest cells of the *stratum corneum* in the anterior and middle parts stain deeply with logwood and picro-carmine, in the latter instance taking on the carmine stain. This staining layer is not of uniform thickness, but consists rather of aggregations of staining cells corresponding to positions of marked hypertrophy of the subjacent interpapillary processes, these aggregations being joined together by a staining band three or four cells deep. Beyond this there is nothing particular to note in connexion with this layer. The *stratum lucidum* is uniformly thickened, and in the posterior part, where the superposed stained layer ceases, it becomes indistinguishable from the layers above and beneath. In parts its continuity is broken in upon by oval or colloid masses, which are also to be found in the stratum corneum. In parts the stratum lucidum loses its character as a layer "in which the outlines of the cells, which are two or three deep, are indistinct, so that on section they appear to form a clear almost homogeneous layer";[7] the cells become distinctly marked, in which case they may be counted, and the layer may be as much as twelve or fifteen cells deep. In the anterior and middle parts the *stratum granulosum* is well marked but thickened; near the constriction it cannot be made out.

The most interesting epidermal changes, however, occur in the *stratum Malpighii*. In the anterior division the interpapillary processes are increased in all dimensions, but between adjacent processes one not unfrequently meets with slender processes, consisting of double columns of closely apposed pigmented (germinal) epithelium, which pass down, splitting the papillæ; these new processes appear to be formed by an involution of the germinal layer clothing the summit of the papillæ; at first there is a mere bud, which lengthens out; and as in process of time these double columns are separated by cells of new formation, new interpapillary processes are formed; as, however, the middle part is neared before the stage of separation is reached, these processes throw off shoots, which coalesce with similar shoots from adjacent processes, so that a network is formed, the trabeculæ of which consist of double layers of pigmented cells, while the meshes are filled with papillary material; and as these double layers are separated by newly-formed cells, an appearance is produced which may stand for a section made transversely through the papillæ—that is, there is a sheet of more or less typical prickle cells, which is perforated by round or oval islets of papillary material, each islet being surrounded by a single layer of pigmented epithelium. This appearance is best marked in the middle part, though here also distinct interpapillary processes are now and then seen, in which case there is usually a "core" formed of horny cells, which runs up into and is continuous with the stratum lucidum, and which, when taken in transverse section, presents the appearance of a "cell nest." These are not the only "nests" met with, for now and then in the sheet of prickle cells one sees a circular area consisting of cells which have lost their prickles and granular appearance, and the nuclei of which have become vacuolated. From the examination of "ribbons" of sections, I conclude that this appearance is brought about by the pressure of an advancing branched papilla, for in consecutive sections this nest is replaced by papillary material. When the posterior part of the toe is reached the entire thickness of the epidermis appears to consist of a stratum corneum; the only representative of any other layer is a layer of pigmented cells, which may take the form of diminutive processes or form a small network.

[7] Quain's Anatomy, 9th edition, vol. ii., p. 237.

Dermal and subdermal changes.—The changes in the remaining tissues may be considered together; they consist of a hyperplasia of fibrous tissue, brought about mainly by a chronic inflammatory process. Wherever fibrous tissue normally occurs, it is found to be much increased in ainhum; further, pre-existing tissues such as bone are replaced by fibrous tissue, and scattered throughout are more or less extensive fibrinous exudations.

Vascular changes.—In the larger arteries there is one constant feature observable—viz., an increase in the thickness of the adventitia; the muscular coat is more or less normal, though in some instances there is an increase in its thickness, brought about apparently by proliferation of the connective tissue elements. It is, however, in the intima that the most marked alteration is observed; while in some vessels there is no such change, in by far the larger number the lumen is encroached upon, even to obliteration of the smaller vessels, by the much-thickened intima; there is, in short, endarteritis obliterans. As the vessels become smaller and capillary, they are surrounded by either fibrous tissue, full grown or developing, or by a copious small-celled infiltration—circumstances which to a large extent determine the characters of the different parts of the section; thus the dermis and papillæ in the anterior part of the toe are chiefly cellular, but proceeding backwards they become more and more fibrous, till near the constriction they appear to be made up of dense fibrous tissue. These conditions also modify the appearances seen; thus in the more fibrous parts a small vessel in longitudinal section would be represented by adjacent strands of fibrous tissue lined by a single layer of swollen endothelial plates, while in the cellular portions one may meet with a nodule, in the centre of which is a minute vessel, perhaps obliterated, surrounded by a delicate fibrous reticulum having a circular disposition, in the meshes of which there is an abundance of small-celled infiltration, an appearance not wanting in suggestions of incipient tubercle. In the middle part of the toe, especially, the capillary loops of the papillæ appear to undergo a hyaline change; the endothelial plates become fused together, so that the vessel appears as a tube formed of continuous translucent material; and in transverse section the capillary appears as a ring of stained material, on the inner aspect of which a swollen endothelial nucleus may project. In the veins the chief alteration is the increase in the thickness of the adventitia, together with which the endothelium is swollen.

Glandular changes.—The alterations in the sweat glands are by no means constant; in some instances the only perceptible change is in the increase in the thickness of the membrana propria by the addition of white fibrous tissue; in others the alterations are more decided. In the distal division of some of the coils there is distinct evidence of proliferation of the glandular epithelium—that is, the single layer of cells has given place to epithelium three or four cells deep. These cells may be distinct, the more internal ones undergoing fatty degeneration, in which case the lumen is filled with detritus; or the cells may be fused together, forming a granular protoplasmic mass, in which are scattered nuclei three or four deep; and, further, this mass may be broken up into irregularly triangular fragments. On viewing transverse sections of the proximal division of the coil in picro-carmine or eosine sections with a low power, one finds that some of them are divisible by their staining properties into two parts—an internal part immediately surrounding the lumen, which stains deeply, and is sharply cut off from the external part, which stains more lightly; and even with a high power the homogeneous, glistening, translucent appearance of the internal part gives the impression that it is an enormous development of the internal limiting membrane. When, however, thin sections are stained in logwood, this internal part takes on a bluish

tint, and, focussing carefully, one sees in it at tolerably regular intervals a single layer of four or five nuclei; and on examining a number of sections, indications of division of this circular band into areas, each containing a nucleus, are met with; in short, this band consists of the internal layer of cells which have become fused together and transformed into a homogeneous glistening material, which is certainly not waxy, for it does not give any specific reaction with methylaniline violet; it is probably hyaline or fibrinous in nature. In such cases, where only the internal part is so converted, the outer layer of cells presents nothing beyond a certain amount of proliferation; frequently the entire thickness of the proximal division is so affected; but in all cases the internal limiting membrane is involved, and the transformation appears to be accompanied by a swelling of the tissues concerned, for the lumen is much encroached upon, being often a mere slit, and sometimes is so much reduced that only on careful focussing it shines through as a fine "leech-bite" opening. This hyaline or fibrinous transformation is met with not only in the major part of the proximal division and duct, but extends also into the distal part, in which case the material is broken up into fragments having rounded contours.

Osseous changes.—In one of the specimens I have been able to examine, the joints and bones were sufficiently preserved to enable one to judge of the seat of amputation, and in this instance I find that the plane of constriction passed through the middle of the first phalanx. In the other instance the joints were effaced, and the only part in which the knife came down upon bone was in the distal part of the toe. The histological changes occurring in the bone are those described as *rarefying ostitis*. On the whole, the process advances with tolerable regularity from the periosteal side; but towards the centre the destruction of bone occurs not only irregularly but very rapidly, so that the greater part of the interior is excavated; and as there is but little attempt at new bone formation, the cavities formed are filled with a reticulum of delicate fibrous tissue supporting capillary vessels and a few oil-globules; new capillaries appear to be formed in this medulla, which becomes infiltrated with a small-celled exudation, giving way ultimately to fibrous tissue. What one sees on transverse section, then, is a rim of bone surrounding a cavity filled with "medulla," such as that just described, into which long, irregular, jagged processes of bone are projected from the rim. This method of replacing bone by fibrous tissue does not seem to be the only one at work, for sometimes, situated in the midst of fibrous tissue, small fragments of bone with one or two perfect Haversian systems may be seen, in which case the animal basis of the bone is found to run into and be continuous with the surrounding strands of fibrous tissue.

Regarding the lymphatics and nerves, I have taken no special steps to study the changes occuring in them, and my observations are too few and imperfect to admit of being put into any shape.

Causation.—"We have not been able to obtain any clue to the primary cause of the disease," says Crombie,[8] "but it seems to be essentially manifested in hypertrophy of the skin of the little toe near the digito-plantar fold, and of the tissues surrounding its middle and distal phalanges, with an attempt at spontaneous amputation at or near the first inter-phalangeal articulation, and in most advanced cases in conversion of the bony structures of the phalanges into fibrous tissue."

The process we have seen is essentially chronic, months, even perhaps years, elapsing before the furrow is sufficiently advanced to result in amputation; and at the end of this time the changes are such that with certain modifications the terms of the description would apply equally to lupus, in which there is dermal and subdermal inflammation, with epidermal hypertrophy, and which is placed by Ziegler[9] among the "inflammations of the skin." Of these conditions—viz., inflammation and hypertrophy—which occurs first in point of time in ainhum? and in what relationship do they stand to one another? Clinically the epidermal hypertrophy and furrow formation are first observed; and I believe that these bear a causal relation to the other changes; that is, the inflammatory and trophic phenomena are due to changes which follow pressure, mainly perhaps on the vaso-motor nerves; so that the question is resolved into one of the method of production of the furrow. In epidermal hypertrophies expressing themselves chiefly in hyperplasia of the horny layer, there is an *outgrowth* constituting the various callosities met with. When, however, the hyperplasia is more rapid there will be increase in the dimensions of the interpapillary processes. If the hyperplasia be yet more rapid, or be due to some direct stimulus, not only will these occur, but there will be a tendency to invade the corium by *ingrowths* of epithelium, and there will be "clusters or rolls and strings of epithelial cells altogether diverse from any normal mode of grouping; and the same may be observed in skin wounds which are in process of repair by epidermic growth and multiplication."[10] These epidermal changes we find occur in ainhum; but they also occur in epithelioma, and in Fig. 62 of Ziegler's Pathological Anatomy we find that while the proliferation of epithelium brings about a general increase in height, *in situations where there is a direct "ingrowth from the epidermis" there is a corresponding depression of the surface.* In a section of epithelioma in my possession this depression amounts to a furrow readily visible to the naked eye, and the microscopic appearance is very instructive. Neither in the sides of the furrow nor in its immediate vicinity is there any epithelial hyperplasia, but at its deepest part the rete Malpighii suddenly enlarges, throwing out long finger-like processes, which invade the corium.

It is in this manner that I seek to account for the furrow formation; as to the epidermal hypertrophy on which it depends, I believe the cause is to be found in external and accidental circumstances. From its position the little toe is particularly liable to injury; further, the digito-plantar fold of this toe is deep, and favours the retention of foreign bodies, as sand, grit, &c.; and the presence of a crack, fissure, or wound in the fold, assisted by the irritation of foreign bodies, if continued for any length of time, would supply the necessary factors for hyperplasia; and the fold itself not only is favourable to furrow formation, but decides the direction of the furrow. In the first instance there would be simple hypertrophy, then active hyperplasia, by which the papillæ would be pushed down and strangled; the epithelial cells, being thus "removed" from the blood-supply, undergo horny change. In the meanwhile pressure on the subjacent nervi vasorum sets up vascular changes, which bring about epithelial changes in more distal areas, and thus the process advances anteriorly—i.e., in the direction of the arteries.

New Hampton.

[8] Quoted by Crawford, loc. cit. So also Hirsch (loc. cit.) says, "Ueber die Ursache des Ainhum herrscht ein vollständiges Dunkel," and quotes from Silva Lima to the effect that "les causes qui le déterminent sont absolument inconnues."

[9] Text-book of Pathological Anatomy (Macalister), sect. 392.

[10] Ibid., sect. 170.

SOME SUICIDAL OR OTHER CEPHALIC INJURIES I HAVE SEEN.

BY BRIGADE-SURGEON W. CURRAN,
ARMY MEDICAL DEPARTMENT, RETIRED.

WITHOUT pretending to say that I have personally seen all the cases recorded below, yet I have been brought one way or another into such close contact with the individuals they include as justifies a reference on my part to them, and whatever concerns the vitality of the brain or of its coverings deserves consideration at the hands of the surgeon. No organ of the body is at times more susceptible of or indifferent to the effects of accident or injury, and a blow or a fall that would prove innocuous in one instance, or under certain circumstances, is instantaneously fatal or permanently injurious in another. Thus one falls, from a blow or otherwise, on an iron rail or on the kerb-stone, and never speaks again. A second falls from a side-car or a donkey-cart, and "receives such injuries as"—to use the enphemism of the press—"terminated fatally in a few minutes." A fourth rolls over the fire-irons or the door-mat, and is taken up in a dying state; and I have just heard of an instance in which a snowball was said to have produced the fatal effect. Reticence or reserve is, therefore, more becoming on the part of the medical man, in presence of this kind of injury, than dogmatism or self-assertion, and the instances that occur at police-courts and elsewhere in which a fracture of the skull is overlooked at the time, while paralysis is sometimes mistaken for drunken-

ness, "ought to inspire reserve as to our diagnosis, and caution as to all our other dealings with this delicate, but withal long-suffering organ."

The subject deserves attention also on other grounds. It is surrounded with the popular prejudices or prepossessions of ages. By some any grave injury to the head that does not prove immediately fatal is regarded with incredulity or amazement. It is held up as a "miraculous escape" to the admiration or wonder of the public; travellers gloat over it, while "specials" exaggerate it, *more suo;* and, finally, escape from it is sometimes ascribed to a particular interposition of Divine Providence. At times, also, it proves a blessing rather than a curse to the subject of it, and the latter has been occasionally relieved by it from a life-long infirmity or otherwise incurable disease. So the wonder grows by what it feeds on—*l'appétit croit en mangeant*, and the popular fallacy or illusion is turned into an article of faith. But these views are propounded in one form or another in all our leading text-books, so that I need not dwell upon them in a medical periodical, and for the rest I have dealt with this phase of the question at greater length elsewhere.[1]

In discussing this subject, I will first give brief abstracts of the cases in point that came under my own cognisance, and I will then deal with them in such fashion as their individual features may suggest or their more striking peculiarities may require. I will then add such post-mortem results as transpired through them either in my own hands or in those of other competent witnesses, and the military surgeon has opportunities of this kind by virtue of his office which are generally denied to the civil practitioner. It is in this sense that the series is now submitted for publication, and it is in this sense only that they can claim a hearing from my brethren.

CASE 1.—A young officer was returning to his bungalow late one night after dinner in a station in the north-west, when, the weather being at the time close and sultry, he bethought himself of the propriety of bathing. Happening to pass at the time by the station bath, it occurred to him that a dip in its cooling waters might cool his fevered brow. He was, I believe, just then "feverish," and whether he was otherwise flushed or excited I am now unable to say. He undressed accordingly and mounted the platform from which "headers" were usually taken, but unfortunately the water had been let out some hours previously for renewal, while the time for its reflow or readmission had not yet arrived, and meanwhile he had either forgotten or entirely overlooked this arrangement. Plunging therefore confidently, from a height of, say, twelve feet or more, into the now empty basin, his head was dashed with all the force and all the momentum of such a fall and such a weight against its concrete bottom, and was reduced to an indistinguishable pulp on the spot. A gentleman, who saw the remains a few hours afterwards, assured me that the features were hardly recognisable, so great was the discolouration of the parts. Another said that the body was so doubled up in the bath as to resemble a sleeping hedgehog or a mass of meat in a butcher's shop, and the bones of the cranium and face were literally smashed to pieces.

CASE 2.—J. S——, aged twenty-one, was brought to the hospital in a helpless state, caused by jumping head foremost from a height into a pond of water that was only two feet deep. He was perfectly sensible, but complained of pain in the top of his head, and there was great tenderness on pressure or after movement of any kind over the sixth cervical vertebra. No displacement could, however, be discovered in this quarter, but there was loss of motion and sensation over the greater part of the trunk. The penis was erect and the pulse slow and full. He slept well during the night, but became suddenly unconscious soon after vomiting on the following morning, and other symptoms of nerve paralysis or irritation supervened shortly afterwards. The breathing became stertorous, the pupils were contracted, and the conjunctivæ were somewhat injected. The temperature ran up to 109° the previous night, while the sphincters became relaxed at the same time, and, growing weaker, he died about 10 A.M. the same day, or within sixteen hours of the time the accident occurred. After removing the brain the blood flowed freely for several minutes from openings in the superior petrosal sinus, and blood was also found extravasated into the sheaths and interstices of the cranial muscles. The atlas was fractured perpendicularly on its left side near its process. The cord itself exhibited some softening over a patch that corresponded with this, and a further search brought to light a further transverse fracture through the body of the fifth cervical vertebra.[2]

CASE 3.—F. R——, aged thirty, a robust and muscular man, was brought to the hospital about 8 P.M. in a state verging on insensibility, the result of a fall on his head and neck, which he had just sustained in the regimental gymnasium. He was trying to "circle" the longitudinal bar of a portion of the apparatus, when, his hands being moist through perspiration &c., he fell as above, and had to be carried to the hospital. He was sensible enough to give a collective account of the accident an hour and a half afterwards, and he could also move his arms at this time. But there was an absence of sensation in the left forearm, and the trunk was quite paralysed. On turning him over on his left side, the back of his neck was found to be very tender and somewhat swollen, but he made no complaint of any other illness or uneasiness, and he felt easy when lying quietly in the recumbent position. The respiration was, however, in part diaphragmatic and 40 per minute, while the pulse was 80, and he was somewhat relieved by a purgative enema.

A diagnosis of concussion of the spine was arrived at, and the priapism that supervened during the night enhanced this impression. The lethargy that subsequently appeared added considerably to the gravity of our prognosis. He, however, progressed fairly during the forenoon, and remained *in statu quo* till about 4 P.M., when his condition changed materially for the worse. The breathing became hurried and gasping, the upper part of the body was convulsed, and he lost his speech and consciousness. He was, in short, dying, and he expired quietly about 5 P.M. On section, fourteen hours afterwards, it was found that a dislocation had occurred between the fifth and sixth cervical vertebræ looked at from behind. The upper vertebra was displaced to the left and thrown slightly forward; but there was no fracture of either, or, indeed, of any kind, and the ligaments appeared to be stretched rather than torn. There was no laceration of the cord or serous effusion into its sheath, and if we except a few red spots here and there on its surface, there was no evidence of any acute or active inflammation anywhere.

As soldiers, to whom these remarks particularly apply, generally commit suicide by shooting themselves through the head, we may easily surmise the condition of that structure after it has been penetrated by a bullet that is fired point blank from a Martini-Henry rifle "at an initial velocity of 1443 feet per second of time." As a matter of fact the destruction of its component parts is very considerable, but yet not quite so bad as one might expect under the circumstances. The old Brown Bess bullet did much greater injury, and often left behind what is called "a shocking sight." Not so, however, with our present weapons; for such is their lightning speed and terrific force with which the missile is propelled by them that it crashes through the tissues without leaving so much as "a wrack" behind, and the aperture that is left by it in the chest[3] or abdomen has little that is striking or even suggestive about it. The attitude of the victim, which is generally standing or reclining backwards either on a cot or against some door or wall, may have something to do with this. So also may the seat of entrance, which is generally through

[1] THE LANCET for December 17th and 24th, 1881. I may be here permitted to adopt as my motto for this paper, the saying of Dr. West, to the effect that "I have always regarded mere compilation, uncontrolled by large experience, as more apt to perpetuate error than to diffuse truth."

[2] I learn from a friend who witnessed the occurrence on the spot that an acquaintance of his fell on a similar occasion to that mentioned within, at Naples, head foremost on a broken bottle, the edges of which penetrated the skull, and could not be extracted during life. He died shortly after being taken out of the water.

[3] In a case of self-inflicted chest-wound of this kind I saw many years ago at Shahjehanpore, we had to stretch the skin of the part ere we could make out the aperture of entrance of the bullet. Similarly in the case of a native who was shot through the perineum by the side of the sphincter ani as he presented that part in mockery to the foe during the Huzara campaign, we had to put the neighbouring structures on the stretch to enable us to find out the opening through which the bullet or slug had entered his body. And as regards that life-long misery which is alluded to elsewhere, and which was so common in the days of Brown Bess, the Duke of Buckingham tells a story in his "Memoirs of the Court of George the Fourth," vol. ii. p. 223, of the Hon. Col. James Hamilton Stanhope, which is so pertinent to our argument that I do not hesitate to reproduce it here. It runs to the effect that "under the influence of nervous depression, resulting from an unhealed gunshot wound received at the siege of St. Sebastian, he went into a retired part of the estate and suspended himself from the bough of a tree"; and many cases occurred under similar irritation or instigation in those days.

the mouth or under the jaw, these two parts being selected in consequence, as I assume, of their affording a rest or resistance against the foot, or rather its big toe, from below. However that may be, life must be extinguished instantaneously under either contingency, and that seems to be the only redeeming feature of this horrible procedure.

CASE 4.—C. McD——, aged twenty-six, a man of fairly temperate habits, who has had only one attack of ague within the last six months, and who was so well the night before his death that he played at backgammon with a comrade, asked this same comrade for some ammunition the following morning. This request excited no suspicions in his friend's mind, as they were both engaged at the time in rifle-drill, and having secured this he soon afterwards retired into an empty room, and there shot himself through the mouth. He was thrown back by the force of the explosion on an empty bed, and on examination three hours afterwards, the whole of the upper portion of his face, as well as the front of the head, were completely blown away. The upper lip was split in two, and the nose, the eyes, the forehead, and a large portion of the brain were carried away by the bullet.

CASE 5.—A. S——, aged twenty-one, a person of strictly sober habits, was in his usual health and spirits on the night preceding his death. Having been "warned" as he was going to bed by a non-commissioned officer for second-class drill the next day, he expressed some surprise at this intimation, and got up in a sulky mood the following morning. He had been previously reprimanded or punished for dirtiness or inattention on parade, and he resented this, *more suo*, by "sulking" at meals and keeping aloof from his comrades. As they were sitting down after the morning exercises of their corps to breakfast in one verandah of their barrack-room, they heard a shot in the opposite one, and on running towards this, they found A. S—— dead in it, with his rifle lying between his feet. He had, in short, just shot himself, and on examining the body four hours afterwards, the whole of the upper portion of the head above the eyes was blown away. The brain, or such part of it as was enclosed in this cavity, went with it, and the scalp, being severed in a straight line, presented just such an appearance as is produced by a skilled dissection for a pathological purpose. So eager was he, withal, to shuffle off the mortal coil that he did not take the trouble of removing his right shoe. He enclosed it instead in the loop with which he drew the trigger, and with which he thus summarily ended all his earthly troubles.

CASE 6.—P. Q——, aged twenty-three, came to the hospital with an earache about 8.30 A.M. on May 7th, and had his ear syringed for what was considered a suppuration of the external meatus. He had previously suffered from pain in this same ear, and he intimated on this occasion that the former pain had returned to it with such severity that he had several times waked up during the night in agony. Some ordinary treatment was enforced, but he was not even detained for the day, and he did not apparently derive much benefit from his visit. On returning to his quarters he walked deliberately into one of the verandahs of his barracks with a loaded carbine, which he had surreptitiously removed from one of the racks, and literally blew his own brains out; that is, the cerebral mass was expelled through a hole in his cranium, and projected to a distance of several yards from where he lay. On inspection, four hours after death, the face was found to be fearfully disfigured, being quite cleft asunder, while its bones were broken up into small fragments. The roof of the skull was burst open, and its contents were extruded. The lower jaw was also broken in three places. Brain tissue protruded through both the eye-sockets, and so great, in a word, was the destruction of these parts that the ear lesion could not be traced. The aperture of entrance of the bullet was surrounded by a dark ring, the result of the adhesion of the ignited powder, and the sight was altogether a sickening one.

CASE 7.—J. K——, aged thirty-four, had been in a desponding state of mind for the two or three days that preceded his death—through, it was said, jealousy. Going early on the morning of the 16th of June into the sergeants' mess of his corps, he placed his firelock under his chin and discharged the contents of it into his head. The result was that the left side of his head and face was literally smashed to pieces, the temporal as well as the parietal bones being fractured and forced outward; and there was a perpendicular fracture of the frontal bone, which extended from its outward orbital plate to its upper border. The left lobe of the cerebellum was a mere pulp, whilst the middle lobe of the right hemisphere was lacerated and some of the fragments figured below were found in this cavity. (See Fig. 1.)

My view of these fragments is this. The bullet whose force we may well suppose was somewhat diminished by its impact with the lower jaw, which, it must be remembered, it had broken into several pieces, then struck the lower edge of the superior maxilla, and was by this broken up as shown below. The larger portion flew away, while the others, penetrating with their necessary bone-fragments the head, through the palate, left behind them such an opening into the interior of the skull as admitted the slightly forcible insertion of my right hand. The torn appearance of the facial muscles and the direction of this rent confirm this view; so do the weight and shape of the fragments shown in the figure. They scarcely amount to half the size and weight of an ordinary artillery rifle-bullet, and they were

FIG. 1.

A represents an ordinary Martini-Henry rifle-bullet; B, a bullet that has passed through the head as well as through the ceiling, and then fallen on the floor. C represents the larger fragments of one bullet; while D represents a finer subdivision of the elements of another; and both were found mixed with the brain tissues of two different suicides.

found as above scattered over the sulcus that separates the hemispheres.

CASE 8.—In this instance a cavalry trooper shot himself through the mouth, and the result shows that no hard-and-fast line can be drawn as to the behaviour of lead in presence of bone. A good deal will doubtless depend on the velocity and composition of the missile itself, as well as on the quality of the powder by which it is propelled, and no two craniæ are, as all pathologists know, precisely alike. Then, again, the resistance it meets or the distance at which it is discharged, however small that may be, modifies its course, and so we find very different appearances in subjects of this class. In one we find a whole side of the face shattered to pieces, while the room in which the deed is done is strewed with fragments of bone, brain, and flesh; in others there is no very appreciable displacement or deformity of any kind, and yet the result is necessarily the same in all. In this instance the bullet entered the skull through the mouth, and escaped from it at the junction of the two parietal and occipital bones. It took away with it about two inches of each of these, and also severed in its passage the superior maxillary bones. The explosion of the powder completely destroyed the soft parts within the mouth. Finally, passing almost unchanged as in Fig. 1 (B) through the ceiling overhead, it dropt spent on the floor below,

and produced very little impression on either of these structures.

CASE 9.—A young man who had shot himself through the head in a railway carriage was handed over to the police on his arrival at Warrington, on his own confession, that he had attempted his life. Declining the use of a cab, he walked to the local infirmary, a distance of a quarter of a mile, and was quite conscious and collected on his arrival at that institution. On being examined, a small circular wound was found about an inch and a half above the right external angular process of the frontal bone, just behind the temporal ridge. With the exception of some nausea and vomiting, there was no evidence of brain lesion present, but a small punctured fracture could be discovered in the skull, and on exposing this, the brain could be seen to be wounded, "the track of the bullet extending to an unknown depth." He survived till the 30th of the month—i.e., nearly six days,—having had a good deal of twitching and vomiting in the meanwhile, and his last night was distinguished with almost continuous convulsions. He had been more or less conscious towards the end.

On section a fragment of the inner table was found lying flat between the dura mater and the arachnoid. The surface of the latter, where it covered the right hemisphere, was inflamed and covered with pus, and on slicing the former the bullet was found to have entered the brain in the line of the fracture, and to have taken a direction downwards, inwards, and slightly backwards through the genu of the corpus callosum to lodge in the anterior part of the corpus striatum. A somewhat truncated "remainder" (I can scarcely call it a fragment) of the bullet was found at this spot, and it, as well as its sounder fellow of the same batch are well represented in Fig. 2.

FIG. 2.

Revolver bullet and its truncated remnant.

Commenting on this case in the *British Medical Journal* of April 16th, 1881, Mr. Richmond, under whose (subordinate) care it occurred, truly observes that its history is somewhat phenomenal. The patient not only walked firmly from the railway station to the hospital, but he retained consciousness for sixty hours afterwards, and, comparatively speaking, fair health up to within the last twenty-four hours of his life. Even then the gravest symptoms appeared to be attributable to the changes that were produced on the surface rather than to those that took place in the interior of the brain. Readers of works on military surgery must be so well acquainted with instances in which bullets or other articles become encysted within the brain for considerable periods that I need not enter into any details respecting them here.

(To be concluded.)

SUCCESSFUL CATARACT EXTRACTION FROM AN INSANE LEPER.

BY BEAVEN RAKE, M.D.LOND.,
MEDICAL SUPERINTENDENT OF THE TRINIDAD LEPER ASYLUM.

IN THE LANCET of Feb. 20th, 1886, Mr. Bickerton relates a case of successful cataract extraction from a lunatic. I have therefore thought that a short note of a similar operation, performed on a patient who was suffering simultaneously from leprosy and insanity, might perhaps be of interest.

G——, aged thirty, a Hindu immigrant, was admitted to the Trinidad Leper Asylum on Sept. 10th, 1883, with a history of anæsthetic leprosy of thirteen years' duration. There was characteristic deformity of the hands. On Jan. 8th, 1885, it was noticed that he talked incessantly, and was often very noisy, causing much annoyance to the other patients. He had been more or less demented since his admission, but had become much worse lately. He was not dangerous to himself or others. On Feb. 26th the left wrist was found to be much swollen. There was effusion of fluid, and the hand was flexed towards the radial side. Grating was felt in the joint, and the carpus could be dislocated forward on to the anterior surface of the radius, reminding one of a case of Charcot's disease. There was no pain on manipulation. The carpal bones appeared thickened, and the fingers were shrivelled and contracted. There was no history of injury, and no other joints were similarly affected. He said this condition of the wrist had come on soon after the onset of the leprosy.

On May 7th he was found to have double cataract. He could see a very little with the right eye, but not at all with the left. He appeared to have lost the sight of the left eye for a long time, but only recently to have noticed the impairment of sight in the right eye. As the conjunctiva appeared to be totally anæsthetic, the left cataract was extracted without chloroform by the modified linear operation. He made no complaint of pain. On opening the capsule a little soft whitish material escaped, but the greater part of the cataract was yellowish and very hard. The extraction was completed with the help of the scoop. As soon as the pupil was cleared he was able to see a little. The eye was treated in the usual way with atropine solution and cold water dressings. Fragments of the cataract were stained with magenta, but no leprous bacilli could be found. Soon after the operation he took off the bandage himself, but it was at once replaced, and he did not take it off again.—9th: Pupil clear. Not much injection. Sees a little. Atropine repeated and bandage replaced.—12th: Pupil clear. Wound has gaped a little, and there is slight prolapse of iris. Atropine repeated.—14th: Conjunctiva very injected. Prolapse almost the same. No complaint of pain.—19th: Iris has settled down flat. Conjunctiva still injected. Sees hand when held up, and touches it when told to do so.—23rd: Injection gone. Iris settled.—June 2nd: Firm cicatrix. No prolapse. Pupil clear. He walks with a jerky movement, lifting his feet high from the ground.—9th: The right cataract was extracted in a similar way, but was found to be softer than the left, and there was some difficulty in getting it to present well. Escape of vitreous was noticed after the operation. Atropine was used, and both eyes at once bandaged.—16th: Suppuration going on. Protruding vitreous opaque. Pain and œdema of lids. Left eye unaffected.—23rd: Right eye settling down. Pain and inflammation gone, but eye contracted and blind. The left eye was quite unaffected, so the bandage was discontinued.—March 15th, 1886: Counts fingers with left eye at 10 ft. Cicatrix firm. Small pterygium growing on each side of cornea. He is still demented, but quieter than he was, and will generally answer questions rationally.

This case seems interesting as illustrating the fact that cataract extraction may be successful under such adverse conditions as the restlessness of a lunatic and the presumably impaired nutrition of a leper, though this latter point I am prepared to doubt. I am collecting statistics, which I hope to publish at some future date, to show that operations on lepers are more successful than is commonly supposed. The complete local anæsthesia due to the leprosy served well in place of a local anæsthetic. I had hoped for success in both cataracts, but perhaps I was in rather too great a hurry to extract the second. Had I waited a few months longer till it became more mature, there would probably have been less difficulty in extraction, and the escape of vitreous might have been prevented. Fortunately there was no sign of sympathetic ophthalmia. Though bearing but remotely on the subject, I may, perhaps, be allowed to refer very briefly to the interesting concurrence of the effusion in the wrist with the jerky gait. Have we here a case of tabes with Charcot's disease independent of the leprosy? or are these leprous changes in the cord and nerves causing arthritis? or is the affection merely an exaggerated form of the joint disease, so common in leprosy, and the jerky gait due simply to anæsthesia? Some day perhaps, a necropsy may give me an opportunity of attempting to answer these questions, or at any rate of referring the specimens to a London Society.

AT some villages in Croatia, chiefly inhabited by immigrants from Herzegovina, cholera has been present for some time, but its existence has been kept secret by the inhabitants. Physicians have been assaulted both in Croatia and Istria, the populace mistaking them for poisoners.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prooemium.

ST. THOMAS'S HOSPITAL.

A CASE OF SUPRA-PUBIC LITHOTOMY IN A BOY; RECOVERY; REMARKS.

(Under the care of Sir WILLIAM MAC CORMAC.)

THE following is important as a contribution to the list of cases of supra-pubic cystotomy in boys where the wound has healed by first intention. Within a week after the operation the wound was firmly healed and the patient practically well, there being thus considerable saving in time as regards the healing of the wound compared with that occupied in perineal cystotomy, and much less discomfort during the process of healing. With regard to the emasculation of the patient which occasionally follows perineal cystotomy, Dr. Haemstadt, quoted by Dr. Tremaine, in a letter on the subject,[1] says, "Only one of eighteen whom I cut as boys, grown to manhood and married, has had issue, so far as I could learn," thus giving confirmation to the view expressed in the remarks. During the last session of the Clinical Society[2] the question of lithotrity in boys was introduced, and its more general employment advocated. This operation has met with much favour in some parts of India, and its performance has been followed by excellent results. Both methods of operating are under consideration, and additional facts will doubtless be brought forward during the next few months.

R. R——, a male, aged seven years and a half, was admitted on July 20th, 1886. The patient was said to have complained of pain in passing urine for the last eight months, the pain being referred to the end of the penis. He has had frequent micturition, but at no time has blood been noticed in his urine, nor sudden stoppage of the stream observed.

On July 23rd, under chloroform, the bladder was sounded by Sir William Mac Cormac, when a small, hard stone was detected. On the 31st, Mr. Tyrrell having placed the patient under chloroform, Sir Wiliam drew off the urine through a No. 2 catheter, afterwards washing out the bladder carefully with a 5 per cent. boracic acid solution. He then with the solution distended the bladder until the dulness reached about half-way to the umbilicus. The catheter was then plugged and allowed to remain. To raise the bladder still further out of the pelvis, a small Barnes's bag was placed in the rectum and distended. This lifted the bladder to within one inch from the umbilicus. An incision two and a quarter inches in length was made in the middle line, terminating just above the pubes. The linea alba was divided and the recti retracted outwards; the anterior surface of the bladder then came to view. No peritoneum was seen. Two stout silk sutures were passed through the muscular coats of the bladder on either side, and held up. The end of the catheter being pointed between these sutures, an incision was made upon it into the bladder large enough to admit a finger. Lithotomy forceps were introduced, and a small mulberry calculus extracted without difficulty. The whole was then carefully cleansed. Three catgut sutures drew the edges of the bladder wound into close apposition. Catgut sutures similarly brought together the separated recti muscles, and catgut was used to close the superficial wound, with the exception of the upper part, where a drainage-tube was placed. The wound was dressed with iodoform, and iodoform gauze with salicylic wool was employed to cover all. No catheter was left in the bladder. Six hours after the operation, the patient had vomited at intervals. As no urine had been passed, a catheter was introduced, and an ounce of blood-stained urine drawn off. Temperature 98·8°.

Aug. 1st.—At 4 A.M. two ounces of blood-stained urine were passed naturally. Throughout the day he has passed urine five times, in all ten ounces. There is no blood in the urine. Vomiting ceased. Temperature, 8 A.M., 97·8°; 12 P.M., 95·2°.

2nd.—Still passing his urine naturally; no blood in urine. 3 P.M.: Dressed under the carbolic spray. The wound had united by first intention, without any pus being formed; the tube was therefore removed and the wound re-dressed. Temperature, 8 A.M., 99·4° (the highest temperature recorded).

4th.—Wound again dressed; sutures removed. It is perfectly healed; patient, as previously, passing urine without difficulty, eight ounces in the twenty-four hours.

7th.—The child is now well, sitting up and playing about as if no operation had been performed. The temperature is normal.

The patient was kept in the hospital under observation until the 18th, but was then discharged, as there had been no symptoms, and the cicatrix continued firm and painless.

Remarks by Sir WILLIAM MAC CORMAC.—I think few surgeons perform the lateral operation for the removal of a stone from the male bladder without feeling some anxiety. In children, although very successful, there are some special risks attending the operation, and one certainly is that the bladder may not be reached at all. The parts are very small, easily torn, and may readily enough yield before the finger when the latter is being pushed into the bladder after incision of its neck. Another liability in the male child is the emasculation of the subject of operation. I well recollect how very strongly Langenbeck insisted on this being by no means an unfrequent result of the lateral method in the child. Indeed, he always performed the high operation in children, and his teaching was very generally adopted in Germany. It appears to me that the restriction of the high operation to the removal of very large stones is likely to be shortly modified in favour of a wider extension of this method. In no case would it seem more applicable than to those of children, in whom the bladder is naturally high and easy to reach, the urine fairly normal and unirritating. The case above narrated proves that immediate union may follow, with absolute absence of general disturbance, pain, or distress of any kind. The wound was soundly cicatrised within a week, and the boy in perfect health. I advisedly abstained from employing the catheter, which is an evil in itself. The urine required to be only once drawn off after the operation. The case, in short, is a parallel one to that of Mr. Parker's, reported in THE LANCET of July 3rd. But he is not quite correct in believing his to be a unique case, for three similar ones of primary union after supra-pubic lithotomy were lately reported in the *Deutsche Centralblatt für Chirurgie*. A result such as the foregoing is well worth recording, and is certainly as nearly perfect as any surgical proceeding can well be. As experience of this rehabilitation operation grows, its value and scope will become more and more strictly defined; yet even now it would seem a desirable plan to follow in the case of young children.

[1] THE LANCET, vol. i., 1886, p. 714. [2] Ibid., p. 740.

BOROUGH HOSPITAL, BIRKENHEAD.

CASE OF POISONING BY PHOSPHORUS PASTE; DEATH ON THE FIFTEENTH DAY: NECROPSY.

(Under the care of Dr. HARRIS.)

THE report of this case is furnished by Dr. H. E. Richardson.

William S——, aged thirty-two, ship's steward, a well-built, muscular man, about 5ft. 10in. in height, was brought to the surgery, at 9.45 P.M., on June 12th, 1886, by a police-constable, who stated that the patient had handed him in the street a pot of phosphorus paste (Roth and Ringeisen's), and said that he had taken it with the intention of committing suicide. A threepenny pot was produced, which would hold about half an ounce of paste. A great quantity of this appeared to have been taken out with the finger. The patient stated that it was not more than half an hour since he had swallowed the poison, and that he took it on account of some family trouble. He seemed in great distress. The stomach-pump was at once used and the stomach washed out with five or six basinfuls of warm water. Lastly, three grains of sulphate of copper were mixed in a pint of warm water and given to him to drink. It was immediately vomited.

On admission he was ordered a hot bath, and placed in a private room in custody of a police-officer; to have a diet of milk, and the following mixture every four hours: carbonate of magnesia, ten grains; sulphate of magnesia, one drachm; peppermint-water to one ounce. His pulse was normal, and he said he felt comfortable. The pailful of fluid which had passed in and out of the stomach was then examined. It had a strong smell of phosphorus, and was luminous in the dark.

June 13th.—11 A.M.: Temperature 98·6°; pulse 80 per minute. Slept all night. Bowels open once freely. Complains of a curious sensation down his throat.—11 P.M.: Temperature 97°; pulse 66. Vomited three times to-day—on the first two occasions bile-stained fluid, then curdled milk. Bowels open again freely; motions loose, and of a dark-brown colour. The mixture discontinued. Ice given to suck. Patient seems low-spirited, but does not show any symptoms from the effects of the phosphorus.

14th.—11 A.M.: Temperature 98·7°; pulse 50. Did not sleep so well last night. Bowels open again this morning.—11 P.M.: Temperature 98·8°; pulse remarkably slow, only 46 per minute. Vomited three or four times to-day after taking milk. Had one dose of the magnesia mixture this evening. No pain or tenderness in abdomen. Lies comfortably in bed. Bowels were open this evening; motions loose, of a dark-brown colour, and very offensive.

15th.—11 A.M.: Temperature 99·2°. Slept at short intervals during the night. Vomited twice some watery fluid mixed with mucus and slightly tinged with blood. Ordered an ounce of castor oil.—11 P.M.: Pulse 66. Bowels open three times after the oil. Has vomited some of the milk he has been taking. A hypodermic injection of morphia (a quarter of a grain) given.

16th.—11 A.M.: Temperature 97·6°. Did not sleep after the morphia injection last night. Vomits the milk he takes, which is curdled. Bowels open once last night. Slight jaundice noticed to-day in the conjunctiva. Ordered two drachms of tincture of opium in eight ounces of water every six hours. The urine is of a dark red-brown colour, due to bile-pigment; acid; sp. gr. 1020; no albumen.—11 P.M.: Temperature 101·2°. Pulse 68 per minute. Vomiting continues; perspires profusely. Did not sleep all night. Complained of pain in the abdomen, but felt relieved after each action of the bowels, which were opened three times, motions being light-coloured.

17th.—11 A.M.: Temperature 98°. Pulse 96. Jaundice more marked to-day, especially on face and chest; face also looks flushed. The tongue is more or less furred. Liver dulness normal, but there is some tenderness over it. Lies with legs drawn up. Complains of a burning sensation all over, especially of face and head. Throws off bedclothes. Vomits frequently curdled milk and a watery fluid; no bile in it. Has been very restless all night. Ordered tincture of rhubarb, six drachms; carbonate of ammonia, half a drachm; bicarbonate of soda, two drachms; water to eight ounces: an ounce to be taken every six hours.—11 P.M.: Temperature 100·1°. Pulse 70. Passed forty ounces of urine, of a brownish-black hue, in the twenty-four hours. Took one pint of arrowroot, half a pint of beef-tea, and two pints of iced milk to-day. Vomited the arrowroot only. One-third of a grain of morphia given hypodermically.

18th.—11 A.M.: Temperature 98·6°. Slept four hours last night. Bowels open once freely; motions very foul, and like chalk-and-water. Took two pints of iced milk during the night; vomited three times. Any movement after taking the nourishment seems to excite the vomiting. Urine is of a reddish-brown colour; sp. gr. 1026; no albumen; no sugar. 11 P.M.: Took arrowroot, beef-tea, and iced milk to-day. Vomited twice only some half-digested food; no bile. Temperature 99·6°; pulse 80; respiration 28 per minute. Bowels open once; of a light clay appearance. One-third of a grain of morphia given hypodermically.

19th.—11 A.M.: Temperature 99·2°. Slept for four hours after the morphia injection. Bowels opened once freely; motions foul, like chalk-and-water. Took two pints of iced milk; no vomiting. Intensity of jaundice increased, and is assuming a brownish tint; tenderness over liver on percussion.—11 P.M.: Temperature 100·4°. Took two pints of iced milk and some tea and toast to-day; no vomiting; has a slight cough. A hypodermic injection of morphia, one-third of a grain, given.

20th.—11 A.M.: Temperature 99·2°. Slept well last night; awoke only twice, and had some iced milk. Bowels open once; light coloured motions. No vomiting.—11 P.M.: Temperature 100·2°; pulse 80; respiration 20. Took two pints of iced milk, half a pint of beef-tea, and half a pint of arrowroot to-day; no vomiting. A ten-grain mercury pill given to-night. The mixture to be continued as before.

21st.—11 A.M.—Temperature 98°; pulse 84; respiration 24. Slept at short intervals last night; slightly delirious towards morning, attempting to get out of bed. Bowels opened twice, white as before. Has had iced milk. There is an inclination to vomit, though he has not done so. No pain, but he seems depressed. Is intensely jaundiced; eyes look sunk, and there is a dark rim around each orbit.—11 P.M.: Temperature 98·8°; pulse 76; respiration 24 per minute. Has had three pints of iced milk and a pint of beef-tea to-day. No vomiting; bowels opened three or four times, and had the appearance of chalk-and-water.

22nd.—11 A.M.: Pulse 88; respiration 20 per minute. Very restless during the night; dozed at times; was delirious and attempted to get out of bed; is in the same state this morning. Refuses nourishment, and is with difficulty made to take it. No vomiting. Bowels not opened. Catheter had to be passed and urine drawn off. Medicine discontinued, and a hypodermic injection of a quarter of a grain of morphia given.—2.30 P.M.: Vomited twice after some beef-tea, given with a spoon with difficulty, the only nourishment since morning. A round worm (Ascaris lumbricoides) six inches long was found in the vomited matter. Brand's essence of beef ordered in small quantities.—6 P.M.: Vomiting continues. One grain of opium pill given, dissolved in a teaspoonful of water. Linseed-meal poultices to the abdomen.—11 P.M.: Pulse 84; respiration 12 per minute (Cheyne-Stokes'). The beef essence retained since pill was administered. Catheter passed, and urine drawn off. A quarter of a grain of morphia injected hypodermically.

23rd—11 A.M.: Pulse 80. Respiration 6 per minute (Cheyne-Stokes'). Dozed at short intervals after the morphia injection; quiet all night. Took two pints of iced milk, together with the Brand's essence of beef in small quantities. Vomited four times; passed urine once. The morphia injection was repeated and the following mixture was ordered: one drachm of pepsine (B.P.); one drachm of dilute hydrochloric acid; four drachms of syrup; eight ounces of cascarilla infusion: one ounce every four hours.—11 P.M.: Pulse 88. Respiration 8 per minute (Cheyne-Stokes'). Urine drawn off with a catheter. It was very dark, bile stained. Perspires profusely. Has taken Brand's essence of beef and iced milk in small quantities during the day. No vomiting. Bowels not opened for two days. Ordered an oil enema, but it was immediately returned without having effect. Patient is quite prostrate and takes very little notice.

24th.—10 A.M.: Temperature 99°; pulse 94; respiration 8 per minute (Cheyne-Stokes'). Slept at intervals. Nourishment given in small quantities with a spoon. Complete prostration and stupor. Perspires profusely. Catheter passed and urine drawn off. Another oil enema given, which acted.—12 noon: Temperature 99·7°.—8 P.M.: Temperature 100·6°; pulse 120; respiration 26 per minute. The pulse and respiration have gradually increased since the morning. Brand's essence of beef and iced milk given in small quantities during the day.

25th.—9 A.M.: Temperature 102·2°; pulse 124, full, bounding; respiration 28 per minute, stertorous. The stupor is passing into coma. Sweats excessively. Motions and urine passed involuntarily. No vomiting.—12 noon: Temperature 102°.—3 P.M.: Temperature 102·4°.—8 P.M.: Temperature 102·6°; pulse 132; respiration 32, stertorous.—11 P.M.: Temperature 103·8°; pulse 132; respiration 44, stertorous. Is in a state of profound coma.

26th.—1.30 A.M.: Temperature 105°; pulse 150; and respiration 54. Has been fed with small quantities of Brand's essence of beef.—2 A.M.: Temperature 105·2°. The circulation is enormously quickened; the pulse cannot be counted. He remained in this state of coma until death.—3 A.M.: Temperature 106°.—3.30 A.M.: Temperature 106·4°.—4 A.M.: Temperature 107°; respiration 60 per minute, stertorous.—4.30 A.M.: Temperature 107·4°.—5 A.M.: Temperature 107·8°; respiration 42 per minute, stertorous.—6 A.M.: Temperature 108·2°.—6·30 A.M.: Temperature 108·6° five minutes after death.

The necropsy was performed by Dr. Richardson, on June 27th, thirty hours after death, and the condition was as follows: Well-nourished, muscular man. Skin deeply jaundiced (a brownish-yellow colour). The lungs on section had a black tarry appearance, and, on pressure, thick, dark, frothy

blood mixed with minute oil-globules, oozed out. The heart weighed 13½ oz., and was very soft and flabby; its outer surface had a pale reddish-yellow appearance. The endocardium and the inner coats of the large arteries were of a mahogany colour, deeper staining being noticed here and there. The liver was much diminished in size, weighing only 42¾ oz., of a drab mottled appearance, very soft and flabby, with thin edges, so that it could almost be rolled up. It was greasy-looking. On section, it was found to be of a uniform brownish-yellow colour, bloodless, with abundance of free oil-globules. The gall-bladder contained a little thin greenish fluid. The kidneys (right weighed 8 oz. and the left 7¾ oz.) were very soft, and their capsules were loosely attached, so that they were easily peeled off, and on section had a pale and oily appearance. The spleen weighed 5¾ oz., and its substance was soft and of a tarry and oily appearance, like the lung. The stomach contained some fluid nourishment mixed with mucus; its coats had the general yellowish altered appearance, but no erosion or congestion could be observed. The brain was not examined. A microscopical examination was made of the organs, and they were all found to have undergone fatty degeneration. The most marked of all was the liver; its cells had disappeared more or less completely, and in their places were observed separate globules of oil, studded all over. The muscular fibres of the heart had lost its striated appearance, and were covered with minute molecules of oil. Extensive fatty change was noticed in the granular epithelium of the kidneys. All these sections for the microscope showed the deep brownish-yellow bile staining markedly.

Reviews and Notices of Books.

Paralyses—Cerebral, Bulbar, and Spinal: a Manual of Diagnosis for Students and Practitioners. By H. CHARLTON BASTIAN, F.R.S. London: H. K. Lewis. 1886.

IT may at first sight seem peculiar that "paralyses" should form the subject of a work on diseases of the nervous system designed to teach the student and practitioner the art of making a diagnosis. But a little reflection will show how it is possible to collect under one heading so much information as Dr. Bastian has been legitimately able to do in this his latest and not least important work. Yet it must not be supposed that the volume before us is an exhaustive one on diseases of the nervous system, though we are bound to confess that the department with which the author deals is by far the most interesting, as it is the most difficult, field of investigation.

There are two chief ways of writing a book of the kind under consideration—the analytical and the synthetical. Dr. Bastian adopts a fairly judicious mixture of the two. He does not everywhere give chapter and verse for the inferences at which he arrives, but he does this wherever matter of a specially controversial character is under discussion. To the earnest student there is much advantage in this arrangement, but to the busy practitioner a general or synthetical statement would probably be more acceptable. To a man of Dr. Bastian's position and learning in neurological matters, to say that the book contains nothing that is unorthodox might be irrelevant, were it not for the fact that even in its alphabet neurology is not a settled science. On the important subject of myelitis Dr. Bastian writes, "that he is far from denying that a primary inflammation may involve areas of the cord and entail softening of its substance," though he rather suspects that most inflammations are of a secondary nature and due to some tangible irritation. We think there is a little over-cautiousness in these views. We have no doubt of the occurrence of primary myelitis. Whether softening of the substance of the cord occurs or not should be regarded as of the nature of an accident, hardly calculated to throw light on the pathology of the morbid process. But it may be asked whether there is any essential difference between primary and secondary myelitis. A primary myelitis must have a cause which may be regarded as an irritant. Many cases of infantile palsy are due to the occurrence of a primary myelitis, the causation of which is of the most obscure kind.

It is a feature of the author's mind—and this book bears admirable testimony to the fact—that anything of a mysterious nature finds no favour in his eyes. Dr. Bastian is gifted with a far-seeing and penetrating intellect, and he accepts new facts slowly, not from a want of capacity to understand the bearings of fresh matter, but because novelty to his mind is no recommendation. No one can discern in this book traces of Dr. Bastian's well-known former hostility to the value of the state of the so-called "deep" reflexes. His acceptance and appreciation of their value in anatomical diagnosis of the morbid conditions in the spinal cord is at once complete and just, for he expects neither too much nor too little from their aid. The arrangement of the book must be acceptable alike to the diligent and to the busy; it is systematic without being arid, and helpful to the student without being inaccurate, as so many attempts with a view to assistance in acquisition are liable to be. With the aid of heterogeneous letterpress the author has done what he could to separate the less important from the principal matter.

A valuable chapter (though what many students will probably find hard reading) is devoted to a consideration of the physiology of speaking, reading, writing, and thinking; being some account of the nature and order of the cerebral processes involved in these acts. The article on the sense of movement, or kinæsthesis, will be read with profit by the advanced student and physiologist; the views expressed therein are practically identical with those given by the same author in "The Brain as an Organ of Mind"—a repository which we venture to think far more suitable for their expression than a work professedly concerned with teaching the student the art of practical diagnosis. Many readers may be of opinion that there are too many digressions from the main drift of the book of the like nature to that which has called forth our comments; whatever of justice there may be in such criticism, it must be owned that without some appreciation of the high physiology of the central nervous system anything like a full understanding of its bearings on the diagnosis of obscure cerebral conditions is not likely to be attained. We can strongly recommend Dr. Bastian's work to the student and practitioner as a monument of learning, exceedingly well put together.

The Management of Labour and of the Lying-in Period. A Guide for the Young Practitioner. By HENRY G. LANDIS, A.M., M.D., &c. Philadelphia: Lea Brothers and Co. 1885.

THIS book aims at giving practical instruction to the young medical man embarking in practice; it does not profess to be addressed to students. It is, however, one of those books the production of which does not seem to us to have been required in the interests of anyone. A student forming himself on the instructions here given would certainly be rejected at any good examining board, not only on account of imperfect information, but also on account of the errors which would be imparted to him; but to the practitioner who followed its advice the consequences might be more serious, both to himself and the patient. It is only fair, having said thus much, to give some reason for our opinion.

We will begin at the beginning. On page 14 we are told that "very little pain attends the contractions unless disease of some sort has interfered with the proper action of the parts concerned. There should be no pain at all during the first stage." About what country is our author speaking? About America? Is it true that American women have this immunity? Does it apply to immigrants, or only to those who have descended from naturalised parents?

But the second sentence in our quotation shows that this may not be our author's meaning, but merely that pain in labour is pathological. Experience tells strongly against this view; indeed, the language of all nations applied to the pains of labour speaks the contrary with no uncertain voice. This idea is continued on the next page, where we read that, "if a woman has a markedly painful labour, it is because personal or inherited violation of hygienic law has caused her to be afflicted with inflammation or mechanical disabilities in the organs of parturition, and not because it is natural for women to suffer in childbirth." Again, we read on page 17 that six hours is the "maximum limit of normal labour." All these statements are not only entirely without foundation, but contrary to known facts. "It is painful to admit that, notwithstanding the teachings and practice of the best obstetricians, and the near approach of obstetrics to a science, there is a widespread tendency to non-interference." We are compelled in the interests of truth to point out that this statement betrays want of acquaintance with the history of midwifery, which has shown a steady progress in the other direction, and has exemplified the words of the Prophet that, in the vast majority of cases, "our strength is to sit still." Our author is quite honest in his opinion, and the words, "the strong delusion ..... that meddlesome midwifery is bad," set it forth even more plainly than we have done (page 19). On page 47 we read: "When once the head begins to press upon and stretch the perineum, the tonicity of the perineum is directly impaired by every degree of continuance of the labour. The longer the time taken to distend it, the more its circulation is impeded and its powers of cohesion diminished." This is not correct; nature provides gradual dilatation as the best safeguard, and the good practitioner endeavours to compass the same end.

We now come to a different category of statements—namely, those concerning the estimation of the conjugate. On page 94 we are told that after measuring the external conjugate "we then guess how thick the sacrum and dorsal tissues are, and how thick the symphysis must be, and deducting these measurements we can guess how long the conjugate diameter is, which might have been done without so much trouble in measuring. ... ... When we succeed in touching the promontory we note exactly where the anterior vulvar commissure touches the skin of the hand. From this point to the finger tip we measure, and this will give us the diagonal conjugate (Fig. 8). Since the inner face of the symphysis is perpendicular, we have the hypothenuse of a right-angled triangle." Exception may well be taken to this passage, not only on the ground of its inaccuracy but the style of its composition.

In a book dealing with midwifery no part is more important than that concerning the department of hæmorrhage. On this subject much that is valuable may be read in any old treatise on midwifery, while late years have added much to our knowledge both of its pathology and treatment. Of the digestion of knowledge, ancient or modern, we here find no trace. Hot milk is said to be the best drink after hæmorrhage, "because it is a near approach to blood" (page 165). We are surprised that our author does not plainly recommend black puddings if this is the reason. In the same place we read that a woman never dies of post-partum hæmorrhage except from neglect, "so certain is our control in these matters." Our author has been, perhaps, fortunate, but he has not apparently read of cases in which hæmorrhage has been absolutely uncontrollable in spite of the most careful treatment. Such cases are indeed very rare, but are none the less undeniable. Dr. Landis seems to think (page 167) that by the hypodermic injection of whisky the volume of blood lost can be restored. "It is possible that enough fluid can be thus injected," &c.

Rupture of the uterus is treated in half-a-dozen pages, and in a most inefficient manner. The chapter on septicæmia is not only inadequate, but positively dangerous, since ridicule is thrown on the idea that septic poison can be introduced from without.

We have now ended our irksome task. To praise is both pleasanter and easier than to find fault; but a reviewer has the serious responsibility of helping others to "eschew the evil" as well as to "choose the good"; and "butter and honey" may enable him to do one, but cannot help him to do the other.

A Short Manual of Chemistry. Vol. I.—Inorganic Chemistry. By A. DUPRÉ, Ph. D., F.R.S., F.C.S., &c., and H. WILSON HAKE, Ph.D., F.C.S., F.I.C., &c. London: Charles Griffin and Co. 1886.

THE authors tell us in their preface that they believe "that the very multiplicity of text-books already published tends to show a want felt, but not yet satisfied." We cannot entirely agree with this; for elementary text-books are multiplied for several reasons, among which the most important is that no two teachers have exactly the same ideas as to the best mode, and each wants a book which harmonises with the arrangement of his own lectures. There are, in truth, at the present time many—perhaps too many—excellent elementary manuals, and the teacher finds it difficult to choose between them. Among these excellent books we shall in future reckon that of Drs. Dupré and Hake; for though there is but little attempt at originality in it, it is lucid and simple, and gives a good account of modern chemical theory and fact. The physical considerations which have affected chemistry so profoundly are explained with somewhat unusual fulness and in clear language, and the accounts of the elements and chief compounds are succinct without being too meagre. The chief point in which the book differs from other recent ones is that the authors have followed the lines adopted by Graham in his now antiquated, but in its time inestimable, treatise. They hold that the broad principles of the science should be studied first, with as little reference to details as possible. Teachers differ much in regard to this question, many preferring to plunge at once into the facts of chemistry and bring out the theories little by little afterwards. Personally we prefer the system used by Graham, believing that students who follow it acquire a broader view of chemistry as a whole, and approach the more practical part of their studies with greater intelligence than those whose theoretical training has been more fragmentary. It must be remembered that in a science like chemistry it is more important to understand general truths than to remember individual facts. It is a common complaint among students who have passed through a stiff examination, that they begin to forget the facts as soon as the examination is over, and they infer that therefore their training has been useless. This is a very obvious mistake. If the training in general principles has been sound, the mere forgetting of details does not destroy it. None of us can remember a thousandth part of the facts we have learnt, but if we have been well trained we can take down a book and understand it, and so find, perhaps, in a few minutes the facts we may require.

Returning for a moment to the text-book before us, we may remark that it is on the whole accurate, and has evidently been carefully prepared. But of course there are some slips. Of these the most important is in the table of elements given on pages 64-5. The column headed "molecular symbol" is most misleading. In the first place, the correct phrase is, of course, "molecular formula"; but, what is of far more importance, many formulæ are given in the column for which there is absolutely no evidence whatever. How, for instance, can we possibly tell that the molecular formula for chromium is Cr_2, and its molecular weight 104·8?

Vital Statistics: a Memorial Volume of Selections from the Reports and Writings of William Farr, M.D., D.C.L., C.B., F.R.S. Edited for the Sanitary Institute of Great Britain by NOEL A. HUMPHREYS, of the Registrar-General's Office, Member of the Council of the Statistical Society of London. London: Edward Stanford.

IT is difficult in a notice of the volume before us to refrain from discussing the works of Dr. Farr himself, for probably no writer of the present century has done more to make records of mortality a means of preventing that mortality, or to confer benefits upon mankind by enabling proper provision to be made against the accidents to which all human life is exposed. Dr. Farr's studies have contributed in an untold degree to our knowledge of etiology of disease. He has enabled life assurance to be placed on an equitable basis, and may indeed be said to be responsible for our Post-office insurance. A strong believer in the teachings of figures when properly handled, Dr. Farr made the utmost practical use of the facts which they indicated. No better evidence of this can be given than will be found in his report upon the mortality from cholera in England in 1848-49, and his subsequent reports upon the epidemics in 1853-54 and 1865-66, when he showed, at any rate to the satisfaction of English observers, the part played by pollution of drinking-water in the dissemination of this disease. But perhaps the works with which his name will be best associated in the future are his Life Tables published in the Registrar-General's annual reports. Most of his writings necessarily appear in the official records of this department, but others of great value occur elsewhere, particularly in the Transactions of the Statistical Society.

The Sanitary Institute has done public service in making Dr. Farr's work more available for general use, and especially in entrusting the important duty of selecting and editing his writings to his friend and colleague Mr. N. A. Humphreys, whose own distinguished position as a statistician, and whose long association with Dr. Farr will enhance the value of the volume in the opinion of its possessors. Mr. Humphreys has divided the book into six parts, and has grouped Dr. Farr's chief writings under the headings Population, Marriages, Births, Deaths, Life Tables, and Miscellaneous, and has himself written a few introductory pages to each part. Each introduction is followed by an exceedingly well arranged series of extracts from Dr. Farr's writings, and at the end of the volume will be found a copious index, which adds much to the usefulness of the book for purposes of reference. To the student of public health and social problems, "Vital Statistics" will be a welcome visitor and a useful friend, while it is in every sense a suitable memorial to Dr. Farr. Perhaps no higher praise can be accorded to it than to state that, in its arrangement and compilation, it is worthy of the editor to whom this duty has been entrusted.

Analytical Records.

CASSELL'S CEYLON TEA.

THE tea plantations of Ceylon have been a great success, and have added in an important degree to the material resources of the island. The sample now before us is very satisfactory. There is no facing or other mineral matter. The leaves are small and clean, and give a strong decoction of delicate flavour. Such tea may well replace the product of China.

SELLERS' NAPHTHOL SOAP.

(J. H. SELLERS, FARRINGDON-ROAD, LONDON.)

Naphthol is a crystalline, sparingly soluble compound, which bears to naphthalene the same relation as phenol (carbolic acid) does to benzene. Its use in eczema and other skin diseases has lately been advocated; and as it is not unpleasant in smell and possesses some antiseptic power, it deserves careful trial. In the present preparation the naphthol is incorporated with a clear and easily soluble potash soap, which is pleasant to use. The naphthol can easily be detected by acidulation and distillation with water. It comes over and condenses in needles.

MARSHALL'S CORN PREPARATIONS.

(J. & T. MARSHALL, GLASGOW.)

Messrs. Marshall have already several excellent preparations in the market, and here are several useful variations. *Farola* is a beautifully clear and very finely divided semolina. It breaks readily into cells with water, and the microscope shows that it is pure wheat. *Granola* is similar to the last, but contains the finer husk of the wheat, and is therefore a kind of whole-meal semolina. It is quite free from adulteration, and is a very useful and nutritious food, especially to those who suffer from constipation. The *Oat Flour* is correctly described by its name. It is a fine cream-coloured flour, containing all the gluten and oil of the grain, and no husk.

CALVERT'S TWENTY PER CENT. CARBOLIC MEDICAL SOAP.

This well-known and valuable article is now made up in small sheets, of which a packet takes almost no room in the pocket. They will be very valuable to the physician and for occasional household use.

BROOKE'S SOAP.

This soap, which is specially recommended by the proprietors for cleaning and polishing metallic vessels in ordinary domestic use, we have found very useful in the cleaning of surgical instruments. It does not answer satisfactorily in the case of knives, as the gritty material in its composition spoils the edge, but for forceps and other instruments not of a cutting character it answers admirably. In cleaning these, it is better to depart from the plan proposed in the directions given, and use the soap dry, scraping some of it on to a "buff-stick"—that is, a piece of wood shaped like a razor-strop, to which a strip of buff leather has been fixed down one side, and then rub the instrument on this. It is very effectual in removing dirt and recent stains, at the same time giving a good polish.

ST. MARY'S HOSPITAL.

WE are gratified to learn that the Residential College for Students, connected with St. Mary's Hospital, which was instituted only twelve months since, has been a great success. Already the School Committee have found it necessary to double the accommodation originally provided. "The College is under the supervision of a warden, who, with a lady superintendent, resides in the building." In this way medical students, fresh from hearth and home, receive such care as is conducive to their health, comfort, and happiness. There is discipline, but it is not harsh. There are supervision and direction, but the reins of guidance are gently handled. From a prospectus recently issued by the governors of St. Mary's, we learn that the medical school buildings, which were enlarged at heavy outlay three years ago, are inadequate to the present call upon them. A new wing is in course of erection. This will add to the space already allotted to various departments, and, in addition, will provide a spacious laboratory for bacteriological and special pathological research. The drainage and sanitary fittings of the hospital are undergoing complete reconstruction. This high-spirited policy deserves success, and doubtless will command it.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 25, 1886.

IT seems desirable that the attention of the Secretary of State for War should be specially called to a serious defect which exists in the administration of the Army Medical Department. We allude to the want of any recognition of the services of the officers, however valuable these may be, unless they are rendered in the field with troops. We are far from underrating the value of the latter, either from the life-saving point of view, or from the equally important moral influence upon the men arising from the knowledge that skilled aid is at hand if they are wounded; but we attach at least as much importance to the professional work involved in the treatment of widespread epidemics, and to the mental labour required to devise and carry into effect those sanitary measures which are necessary to promote the health and efficiency of the soldier in peace as well as in war, and to prevent outbreaks of disease which are far more fatal in their effects than the artillery or rifles of an enemy. Yet in the distribution of rewards and honours such services, when rendered by army medical officers, are systematically ignored. This treatment is not extended to other departments of the army, for if we examine the lists of the Order of the Bath, we find among the Civil Companions officials of all grades, from general officers to War Office clerks, but not a single army medical officer. Among these names are many well known in the scientific world, nor would we for a moment imply that the others have not also earned the coveted distinction by valuable and honest service; but we protest against the omission of medical officers who have claims, scientific and professional, equal at least to those of a large number of the decorated. We know not to what their exclusion from a share in such honours may be attributed, but it certainly is not to any lack of officers who have clearly earned a title to them; nor is it due to neglect on the part of the head of the department to bring such services under notice, for it is within our knowledge that directors-general have recommended officers for this distinction on such grounds, and that their recommendations were not carried into effect. The army reports and the report of Lord HERBERT'S Commission furnish us with some remarkable evidence as to the value of the sanitary services rendered by the army medical officers. For instance, among the troops serving at home the death-rate on the average of the ten years 1837-47 was, among the cavalry 13·5, foot guards 20·4, and infantry of the line 17·8 per 1000 of the strength, while on the average of the ten years 1874-83 the ratios were 4·45, 5·37, and 4·76 per 1000. On foreign stations the reduction has been still more striking; in the West Indies the ratio has fallen from above 80 to under 16, and in India from over 60 to about 17½ per 1000 on the average of ten years. We leave it to the War Office actuary to determine the saving of life and of money resulting from these great reductions. We do not say that this has been effected by sanitary measures alone, but there can be no doubt that they have been a most potent agent. We have been unable, after careful inquiry, to find that any one of the officers by whose skill and labour these important results have been achieved has ever received any reward or had any honour conferred on him in recognition of them. That such treatment should be possible is far from creditable to our War Department, and we trust Mr. W. H. SMITH will take early measures to remove and, for the future, to prevent it. It appears to us that under the present system the selection of medical officers for honorary distinctions rests with the military authorities, who are not competent to judge of the value of professional services, while the head of the department, who is in every way qualified to do so, is ignored, and, if he ventures to make a recommendation on such grounds, has the mortification to find it disregarded. It surely is not too much to expect that the recommendation of the Director-General to reward valuable professional services in an adequate manner should meet with more consideration than in the past, and that rewards should be conferred for services other than those in the field. From a public point of view, it is most desirable that the army medical officer should never forget the importance of the duty of maintaining the health and efficiency of the men entrusted to his care; but it is almost too much to expect of him, when he finds his services in that direction ignored, and his labours, however valuable, overlooked in the distribution of rewards. A serious evil resulting from this system is that the administrative medical officer is disposed to look upon these important duties as mere matters of course, and, as in an instance quoted by "A Surgeon, Medical Staff," in *The Times*, instead of giving credit to an officer for long and zealous professional service rendered under circumstances of difficulty, to content himself with the congratulatory remark, "It is lucky you did not get ill yourself." It redounds to the honour of the medical officers that, with a full knowledge of the neglect with which they would be treated, they have persevered in a course which has proved so beneficial to the soldier, and has assisted in a very important degree to promote sanitary science and its practical application to public health.

THE appearance of Sir SPENCER WELLS as President of the Sanitary Institute of Great Britain during its recent congress at York was altogether congruous and satisfactory. Only superficial persons would think sanitation a subject of little interest to surgeons; in truth, their interest in it is almost terrible, and their splendid contributions to it of late years—notably those of SIMPSON, LISTER, WELLS, and TEALE—have been most valuable and significant. The difference between modern surgery and old surgery is chiefly one of sanitation. The worst accidents and calamities of old surgery were not due to the coarseness of its instruments or the unskilfulness of its operators, but to subtle impurities of air and water, to impalpable and invisible germs, whose influence has now been well-nigh checked and counteracted, thanks to the care and the methods of modern surgery. Sir SPENCER WELLS kept this particular aspect of the question of sanitation in abeyance at York, but there is no reason why we should treat it with such modesty; on the contrary, we

magnify the merit of our great surgeons in this branch of hygiene, and see in their labours and their successes the most triumphant demonstration of the virtues of pure air against all champions of traditional filth and carelessness.

Sir SPENCER WELLS, with much good taste, took a broad survey of his subject, regarding it rather from a public point of view than from his high professional position. His main contention, indeed, was this, that in respect of sanitation the scientific and professional work has been largely done; at any rate, that the cause of public health suffers now more from want of the help of proper legislation and effective administration than from want of scientific data to go upon. He does not fail to notice the present impotence of Parliament. "The waste of time and energy in Parliament in party struggles has banished all possible home legislation." These are wise and grave words from one above all party considerations, and, as the whole spirit of his address shows, with a generous and charitable feeling to all classes of workers, from workers with the hand to legislators and ministers of the Gospel. It is well that our legislators should know how their work, or rather their want of work, is regarded by a man of action, and of evidently broad political feeling. He sees national work to be done that is not being done. Everything has a special Minister but the health of the people, and this is sacrificed to considerations of economy. It is not sensational enough. It does not affect "party struggles." That a man should have a vote, and that he should be able to vote by ballot are evidently prime desiderata; so it is that he should have plenty of cheap bread, especially as a rival set of politicians are interested in its being dear. But that he should have pure water and plenty of it, that his house should be decent and his work harmless, that the air he breathes should be uncontaminated, that his life should be protected from the onslaughts of insidious and impalpable germs in his milk, or his clothes, or his pork—these are points out of which the most astute party leader can extract no enthusiasm. And so the cause of health languishes, and many diseases flourish.

Sir SPENCER WELLS is not a complainer; he is cheerful even under the depressing circumstances of a Government very indifferent to health questions as compared with party questions. He anticipates a good time coming; when the crisis of angry discussions and political complications has passed, the turn will come for practical measures. What a fine faith there is in a sentence like this! His estimate of progress, too, is a generous one. Human life has been lengthened twenty years by the labour of sanitarians, chiefly medical men, in the last half-century; the people are more thrifty, and when they are ill they are better looked after under provident medical arrangements; drunkenness and crime have diminished. There is a broad statesmanlike tone in Sir SPENCER'S treatment of such questions as school-pressure and the mental and physical training of women. He thinks women capable of a great deal more than they have been accustomed to do in times past. As regards school-pressure, he does not deny it, but cleverly connects it with the very success of sanitarians. Such children as exemplify it in less perfect times would have been effectually killed before the school age by bad sanitary conditions; now "they are survivals of the least fitted." They must be trained more and taught less. The specific points urged by Sir SPENCER WELLS on his audience were all good, though somewhat miscellaneous, having reference to the education of children, the cultivation of forests by governments, the prevention of disease, and the support of hospitals and convalescent homes. On one favourite topic he repressed himself—that of cremation; but his whole address was eminently worthy of one who has added greatly to the health and happiness of human life.

MATTERS connected with the physiology and pathology of the larynx are in an unsettled state. We are in a position to make several positive assertions on the subject, but how to completely reconcile all the statements it is not easy to discover. The propositions that may be made are as follows: 1. Stimulation of the recurrent laryngeal nerve by a strong faradaic current gives rise to adduction of the vocal cords, provided that the animal (dog or monkey) be not too deeply narcotised. The same adduction of the vocal cords is observed if the stimulation be applied to the recurrent nerve of the recently excised larynx. 2. Stimulation of the recurrent nerve with weak currents, however, usually causes abduction of the vocal bands. 3. It is maintained (SEMON'S theory so called) that the abductors of the larynx are weaker than the adductors, or ratner that in all cases of acute or chronic organic disease or injury of the nuclei or trunks of the motor laryngeal nerves (spinal accessory, pneumogastric, recurrent laryngeal) the abductor muscle or muscles first succumb, whilst, on the other hand, in cases of functional disorder the adductors usually suffer alone. 4. Experimental injury to the whole trunk of the recurrent nerve is followed after a few days by histological changes of a fatty order in the fibres of the abductor muscles, the adductor fibres not apparently suffering.[1] 5. GRÜTZNER and SIMANOWSKY declare that there are histological differences between the adductors, which belong to the group of "white" muscles, and the abductors, which are members of the group of "red" muscles. 6. The abductor muscles "die" sooner than any of the adductors; they lose their electrical irritability earlier than their antagonistics; and yet the abductor posterior crico-arytenoids are absolutely the most bulky muscles of the larynx. 7. The larynx contains muscles of organic life that subserve respiration—the abductors; and muscles specially related to conscious existence—the phonators, used in articulation, the adductors and tensors of the vocal cords. 8. Anæsthesia caused by the inhalation of ether, chloroform, &c., first abolishes the functions of conscious life; hence we should expect that, under moderately deep narcosis, stimulation of the recurrent nerve would give rise to abduction of the cords, seeing that the abductors are not affected by the anæsthetic.

More than a year ago Dr. HOOPER, of Boston, made a curious observation, the full meaning of which he did not apparently grasp. Accordingly Dr. SEMON, with the experimental assistance of Mr. VICTOR HORSLEY, has reinvestigated the matter, and the result of their work is an elaborate but lucid paper, read before the section of Therapeutics and Pharmacology at the annual meeting of the British Medical Association. Dr. HOOPER argued that,

[1] H. Krause: Experiment. Untersuchungen und Studien über Contracturen der Stimmbandmuskeln. Virchow's Archiv, vol. xcviii., 1884.

as the constrictors of the larynx were muscles whose action would be impaired by the inhalation of anæsthetics, they being essentially voluntary muscles, stimulation of the motor nerves of the larynx whilst the animal was under the influence of ether should cause dilatation of the glottis. This was actually found to be the case, provided the anæsthesia was sufficiently profound. The experiment determining this fact is remarkable and well worth further examination. A dog tracheotomised for the purpose of administration of ether, and with its recurrent laryngeal nerves exposed, is prepared for experiment. When the dog has been narcotised profoundly with ether, it is found that stimulation (with a strong current of the faradaic kind) of the motor nerve gives rise to dilatation of the glottis; if the stimulation be repeated at intervals whilst the animal is recovering from the effects of the ether, the abduction is noticed to become less and less marked, until a stage is reached in which stimulation merely causes a vibratory movement of the vocal band—a condition of neutrality, caused doubtless by a nearly equal contraction of the antagonist muscles. Continuing the experiment, the effect becomes gradually reversed, until, when the influence of the anæsthetic has practically passed off, stimulation of the nerve causes the familiar powerful constriction of the larynx. All this is very interesting; but there is another point that struck the attention of Dr. SEMON, and that was that the abduction effect of stimulation of the motor nerve was observed when, the animal being completely narcotised, the nerve had been "cut." The cause for the surprise manifested by SEMON and HORSLEY lies in this single fact—the excitation of the nerve was effected on the distal cut end of the motor nerve. Now, it has usually been asserted that the action of anæsthetics is on the central portions of the nervous system, beginning with the highest and gradually descending, consequently paralysing the functions, first, of the cerebral cortex. The recurrent laryngeal nerve is, with the exception of the branches to the crico-thyroid muscle, derived from the superior laryngeal nerve and the pharyngeal plexus, the only source of motor innervation of the larynx. 'If, therefore, in an animal very deeply narcotised abduction of the vocal cord occurs when the peripheral end of the cut recurrent laryngeal nerve supplying the muscles of that cord is stimulated, it is perfectly obvious that the effect of the narcotic is in no wise due to the central nervous system. We should be driven, therefore, to conclude that ether must act specifically either on the nerve fibres, their endings in the adductor muscles, or on the muscular substance itself, supposing that there is no peripheral ganglionic apparatus subserving the function of movement in the larynx, of which we have at present no evidence." The absolute novelty of the fact that ether has a discriminating influence on the peripheral nerves of the larynx is insisted upon by SEMON and HORSLEY — a topical influence not due to the local action of the anæsthetic on the nerves ending in the larynx, for in the majority of the experiments the ether was administered by the trachea, and must have reached the periphery of the recurrent laryngeal nerve through the circulation. The fact of histological and nutritive differences between the abductors and adductors of the larynx, above alluded to, served no doubt to pave the way for the recognition of the remarkable phenomenon of a peripheral discriminating influence of ether on the neuro-muscular apparatus of the larynx. The question naturally arises whether this influence is one confined to the muscles of the larynx, or whether it is not also likely to hold good for other peripheral neuro-muscular apparatus also. For instance, under the influence of ether, in certain degrees the knee-jerk is increased in force; this means of course that the extensor triceps contracts with greater force. Various explanations of this have been offered, and it is also worth entertaining whether the ether may not have had something of the peripheral action on the antagonistic flexor muscles of the knee-joint, thereby allowing a mechanical stimulation of the extensor muscle to have an unusually powerful effect. It should ever be remembered that the extensors and abductors of the body "die" sooner than the flexors and adductors—that is, lose their electrical excitability sooner after somatic death.

What we have already advanced will show how very complicated the physiology of the larynx has become, and we cannot but commend the authors of the paper above referred to for their freedom from dogmatic assertion, and for their ready allowance that differences in results may be brought about as the outcome of individual and generic differences in the kind of animals experimented upon. The age and accidental fallacies resulting from the influence of complications caused by damage to the nerves from prolonged exposure, as well as certain inherent difficulties of observation regarding the exact position of the vocal cords, may introduce fallacies.

ON Saturday last a discussion was raised in the House of Commons on the manner in which the duties of the medical staff of the General Post Office are discharged. It was based upon the case of an official in the telegraph department who, after an absence of a fortnight on sick leave, had attended, by order of the Post Office, to be seen by the medical officer, and who died of typhoid fever a fortnight afterwards. From the explanation given by Mr. RAIKES we are led to believe that there was no blame attachable to the acting medical officer for the course he adopted, nor was any harshness shown to the gentleman in question. But Mr. PICKERSGILL, by whom the case was brought forward, alleged that the conduct of the medical staff was oppressive to the *employés* and injurious to the public interests, and he was backed by Mr. ISAACSON, who assured the House that "a spirit of dissatisfaction existed among the people with regard to the manner in which the medical department of the Post Office was conducted." We do not know the regulations which are laid down for the guidance of the medical officers attached to the Post Office, but it appears to us that they must involve two important duties—first, that of preventing malingering, or shirking duty on pretence of sickness; and, secondly, of protecting the *employés*, when really ill, from being called upon to perform their work, or being punished for supposed neglect of it. We presume that the rule which holds in other public offices applies to the Post Office, that when a clerk is prevented from attending by illness he must forward a medical certificate. This would be a protection of the interests of the public if it were not possible to obtain such a docu-

ment on very insufficient grounds; but we know that, unfortunately, such certificates are occasionally—we trust not very often—given on inadequate data, sometimes through carelessly accepting the patient's statement of his unfitness for duty without any examination of the case, and at others from a dread of giving offence by a refusal. It is obvious that there should be some means of preventing such irregularities, and this can be done in two ways, either by ordering the attendance of the person at the office for examination by the medical staff, if he is able to go about, or having him visited at his home on forwarding an intimation of his inability to attend. It will doubtless be asserted that this is showing a distrust in the individual, and that the medical certificate should be accepted without hesitation; but we have known of instances in which a visit to the residence of the "sick man" proved that, while unable to attend his office, he was not quite so ill as to find it necessary to remain at home. We believe that a check of the nature above indicated has been found to be required by some large employers of labour, and has been attended with satisfactory results. We have no doubt, however, that this would be unpalatable in cases where the excuse is unsatisfactory, or when the inability to attend to duty is the result of personal misconduct. Mr. PICKERSGILL objected to a vote of £100 a year to pay substitutes for the medical officers when absent on leave. The duty appears at present to be fully as much as the staff can undertake, and it would be alike cruel and unjust to work the medical officers through the whole year without any period of relaxation. We would suggest therefore to Mr. RAIKES that the best way to meet such an objection would be to include an additional medical officer in next year's estimates. This would not only provide for a fair amount of leave to the staff, but would also place at his disposal an officer available for duty in case of illness of any of the others, or of the necessity arising for any special inquiry into sanitary questions connected with the service. He would also be available for visits to, and examinations of, any *employés* respecting whom the authorities might consider it necessary to obtain more detailed information.

Annotations.

"Ne quid nimis."

THE PROGRESS OF CHOLERA IN EUROPE.

DURING the week ending the 21st inst., there has been a decided diminution both in the number of places in Italy from which cholera records have been issued, and also in the amount of the mortality registered. The diminution has taken place in the north-east, in the Bay of Naples, and in the extreme south of the kingdom. In the north-east, Ravenna is the only place in which any very serious cholera mortality is now occurring, and in the Bay of Naples the disease is rapidly diminishing at Torre dell Annunziata, and it has failed to make any noteworthy progress at Castellamare. But whilst this is the case as regards Italy, the disease has exhibited further extension in Austria-Hungary. Fresh batches of cases and deaths are taking place at Trieste, Fiume, and Pola, a large number of small villages in Croatia are infected, and the appearance of the disease in Pesth has been followed by the announcement that it also exists at Raab about midway between Vienna and Pesth on the Danube. In the Trieste district there have been 576 cases and 368 deaths since the month of June, and during the same period the fatal attacks in the neighbouring provinces have exceeded 350. In the greater part of Hungary the weather is getting cold and unfavourable to the rapid diffusion of cholera; but whether cities like Pesth or the smaller towns and villages are concerned, it must be remembered that the prevailing sanitary circumstances, and especially those relating to the disposal of human excreta, are precisely such as are usually associated with the wide prevalence of cholera. On the 17th inst., there had been 53 cases and 11 deaths at Raab, and between the 12th and 18th inst. there have been 61 cases and 19 deaths in Pesth. The latest news is to the effect that 33 cases and 4 deaths have also occurred in Austria proper.

J. SAMPSON GAMGEE.

THE intimation of the death of Sampson Gamgee, is one of the most unwelcome pieces of news which we have received for some time. The accident which he had met with and his latent renal infirmity were known to us, but he was reported to be doing well, and his letters were in his most vigorous style, when lo! the intelligence comes of his decease. He was a rare man. That he had faults we may concede to those who love truisms. But what virtues he had, what grace of speech, what kindness of heart, what cultivation of mind. How complete were the principles of his surgical art—original yet conservative. How he loved the working men of Birmingham, and urged them to love its hospitals and to help them; and yet how keen was his sympathy with intellect in its purest forms. How he reverenced all that was classical and traditional in the profession, and yet what sympathy he had with its rank and file and the men who bear the burden and heat of the day. His own day was, we fear, not without heat and burden, and for years past he has had the look of impaired health, but he was always ready to lend a helping hand or speak a gracious word; and as a practical surgeon he has left in his book on the Treatment of Fractures and Wounds a legacy which will mark and foster the fame of surgery as a tender and conservative art. We cannot forget his old connexion with this journal, and his faithfulness to it even to the last. He was one of the few writers who had served both the founder of this journal and the son whose loss we now deplore. We can ill spare such men, and his loss happens unfortunately just now, when the profession needs men whose love of the past does not blind them to the needs of the present.

PROPHYLAXIS OF PHTHISIS.

AT the recent meeting of the British Association, Mr. G. W. Hambleton read a paper entitled "The Scientific Prevention of Consumption," based upon his views—to which we have lately alluded—as to the etiology of the disease, which are embraced in the sentence, "Those conditions that reduce the breathing surface of the lungs below a certain point in proportion to the rest of the body." The conditions in question are, as may be expected, very numerous, comprising sedentary occupations, overcrowding, want of exercise, defective seats, clothing, &c., leading to habitual disease of the lungs or the undue compression of the chest. In fact, consumption is, on Mr. Hambleton's doctrine, invariably "acquired." Its prophylaxis, then, requires a free country life, well-ventilated rooms, suitable chairs, and clothing free from constriction and not too heavy. The physical training, commenced in the nursery, should aim at the full development of the thorax, and all out-door occupations and amusements should be encouraged in youth to this end.

Unless the breathing capacity, as shown by measurement, is up to the normal, the individual should not engage in any trade or occupation such as would compress the chest or injure the lungs by inhalation of dust; whilst those who have to follow such pursuits should by exercise of the lungs endeavour to counteract their evil effects. All of which advice, without being novel, is sound and forcible; whilst if it could be followed as widely as Dr. Hambleton would wish, it would doubtless do even more for the public health than reduce the mortality from consumption.

COMPULSORY ATTENTION TO CHILDREN'S TEETH.

THE prevalence of caries of the teeth amongst so large a majority of the units that comprise civilised communities, and the consequent pain and inconvenience entailed, and, perhaps unconsciously, the absence of those pleasures attending a good digestion which makes up so large a part of individual happiness, have induced the public to interest itself in the pathology and treatment, especially prophylactic, of these organs. Now, if we wish to get at the root of the evil we must commence our treatment with the deciduous teeth. Many patients—nay, even medical practitioners—ask, what is the use of preserving teeth which have only to serve their purpose for a time and which nature will replace? If a surgeon were asked what is the use of provisional callus in a case of fracture his answer would be readily formulated, and just such an answer is applicable to the teeth. We will run over just a few of the points that may result from disease and its neglect. First, with regard to the child's health. With decayed teeth, and often, in addition, chronic gumboils, the little sufferer is kept awake at night and his digestion affected by inability to masticate his food, and more so by swallowing the fetid discharge from the abscesses. As a consequence the child becomes weak and puny, and so the already developing permanent teeth suffer from the constitutional disturbance. Supposing each tooth as it becomes the seat of pain is extracted, then the masticatory power is greatly enfeebled, and, moreover, it has been shown that where many deciduous teeth have been removed, especially in the case of the canines, the jaw does not develop as rapidly as it should do, and consequently, when the permanent teeth erupt, some take their position inside and some outside the arch, which irregularity is a potent predisposing cause of caries, apart from its unsightliness. Again, take for instance a very common case, that of a second temporary molar extensively decayed. The first permanent molar assumes its due position posterior, and the first bicuspid anterior, to it. Both these permanent teeth are frequently found affected on the side corresponding with the deciduous tooth, and the disease is undoubtedly due to the infection from decomposing food harboured by it. Although much more might be said upon this subject, we think that enough has been advanced to show the importance of first teeth with reference to the welfare of their successors, which should, but so often do not, do duty for a lifetime. We believe that nothing short of the periodical examination every six months, and treatment if necessary, of the teeth of children can effectually cope with this evil. At the recent meeting of the British Dental Association, Mr. Fisher, of Dundee, read a very able paper, in which he strongly advocated that dental surgeons should be appointed, with sufficient salaries to ensure the possibility of conservative treatment, and not, as heretofore, only extraction, to all public schools, reformatories, industrial and endowed schools, training-ships, &c. He has examined the teeth of a large number of children attending schools, and found that on an average over 75 per cent. required dental treatment; he also mentions the startling fact that the principal manufacturers in London supply 10,000,000 artificial teeth per annum, showing the enormous loss of natural teeth amongst the community. There is already a move in the direction of Mr. Fisher's suggestion; as we noticed some time ago, the North Surrey District Schools have appointed a dental surgeon at £60 per annum, and since then the District School of Upper Norwood has a dental officer. The Metropolitan and City Police Orphanage has had for some years a dental surgeon.

"THE FALL OF THE LEAF."

THE slight frosts which have occurred an hour or two before dawn in the past fortnight have already had their effect on our trees, changing the varied green to the exquisite and variable red and russet tints of autumn. This will soon be followed by the "fall of the leaf." Many an exquisite shady spot in summer will now become damp and chilling, and a musty odour of decaying vegetation will take the place of the fresh and invigorating shade of summer. Sensitive natures are very susceptible to this alteration, and feel that health necessitates a change of abode during the later autumnal months. Nor is the deleterious influence of decaying vegetation confined to sensitive natures alone. Stronger natures are alive to the influence of the "falling leaf." The ground becomes bestrewed with vegetable decay, and the atmosphere impregnated with the products of decomposition. The air becomes musty, and lowly forms of vegetable and animal life are about. The fungus takes the place of the sweet-scented herb, and damp moss that of the green sward. The honey-fed bee keeps nearer the hive, and is replaced in the garden and shrubbery by the gnat, the midge, and carrion-fly. Modern science teaches that all active organic decomposition and autumnal vegetable changes are inimical to higher animal life. Even insects are not free from this risk; they pass into a state of torpidity in autumn, and "should any particular moisture accidentally accumulate on them, it affords a seed plot for certain minute fungi to come up and grow in." So wrote Kirby and Spence more than fifty years ago. What is true of insect life has been proved to be equally true of higher forms of animals and man, with only such modifications as their different natures imply.

"THE PROTEAN MAN."

SOME wonder is being excited in the provinces of France by the exhibition of an individual who dubs himself "L'Homme-Protée." The number of shapes and attitudes that the man is able to assume is said to be so great that the title of "Protean" may well be allowed if the individual manifests only half the powers attributed to him. Now, whatever he can do, it is obvious that his faculties are the same in kind as those possessed by the rest of mankind, though the degree in which the faculties are developed may vary vastly; so that we cannot agree with the writer who asserts that the contortionist transforms himself, thanks to his *peculiar* system of muscles. Doubtless his frame is wonderfully mobile, and every part of his nerve and muscle apparatus has been trained to the utmost. It is possible, also, that M. Aiguier is gifted with the power of influencing the action of muscles over which man usually exercises no voluntary control, though with practice many may acquire the capacity if they set themselves about the task in the proper fashion. The Protean man, it is said, can assume the rigidity of a statue, so that, the body sharply struck, the blows fall as on a block of stone. This probably means that the man has the capacity to develop

at will the cataleptic condition. By varying the activity of different muscles of the abdomen he is alleged to be able to give his trunk a great variety of shapes and sizes, from that of the proverbial alderman to that of the lean and haggard student. He is even accredited with the possession of the power to appear as lean as a skeleton; but this must surely require an effort of the imagination, as well as a still greater effort on the part of the muscular and vascular apparatus of the contortionist. What most astonished M. de Quatrefages, who examined him, was the ability to stop the flow of blood, now on the left, now on the right side of the body; this was ascribed to the influence of unilateral muscular contraction.

HOSPITALS AND MEDICAL EDUCATION.

A PAMPHLET entitled "The Relation of Hospitals to Medical Education," by Dr. C. F. Withington, of Boston, will interest many on account of the care and judgment with which it treats an important subject, which is not quite a simple one. In the first part of the paper the duty of hospital governors to make use of their unrivalled opportunities of instruction is insisted on. It is the proper part of such institutions, as the author sensibly observes, not only to aim at the cure of patients within their walls at a given time, but, moreover, to gather from observation of all such, and to share with others, experience which will work for the health of many in time to come. The personal rights of patients are considered at length. As regards this point—a delicate one in some cases—a good deal of tact and fellow-feeling blended with perception of practical necessity appears in the advocacy of carefully conducted clinical and pathological investigations. There is much truth in the author's contention that resident posts as well as higher hospital appointments ought to be assigned on the ground of merit alone. We cannot quite agree with him, however, that competitive examinations are to be regarded as a good test of merit in such cases. A plea for the training of male nurses, and for the diffusion of some knowledge of nursing among the public generally, is noteworthy. Another suggestion in this paper is that workshops for the construction of surgical apparatus might be established within the hospitals. Surgeons would then supervise the making of their own appliances, and students might arrive at some practical acquaintance with mechanics as applied in surgery.

ANOTHER FORK IN THE STOMACH.

M. POLAILLON reported, at a recent session of the Paris Academy of Medicine, an interesting case, which was then under his care, but which terminated fatally, of a man who had swallowed a table-fork. The patient explained very exactly, as was afterwards found, the position of the fork, its handle being in the right hypochondrium, and the prongs directed obliquely upwards, backwards, and to the left. Scarcely anything, however, could be felt by external palpation, although the man was of spare habit, and M. Polaillon at first had some doubts as to the existence of the foreign body, especially as an œsophageal sound gave no indication of anything hard when passed into the stomach. An instrument was then constructed on the principle of the galvanic bullet-probe, and a slight indication was obtained with it. A delicate magnetic needle was, however, distinctly affected when the man's epigastrium was brought near it; and a powerful electro-magnet, placed a few millimetres from the abdominal wall, produced, on closing the circuit, an arching of the skin, as if a body within the abdomen were being attracted towards the poles. A suspended electro-magnet also oscillated towards the abdomen whenever the current was passed through it. There being, therefore, no longer any doubt as to the existence of the fork in the stomach, M. Polaillon made an incision, commencing at the ninth left rib, one centimetre within the border of the costal cartilages, and carrying it for seven centimetres in the direction of the xiphoid cartilage, as recommended by M. Léon Labbé, as the best position for reaching the stomach with certainty. In this case the stomach wall, which was very thick, was seized without difficulty, temporarily secured and opened, the fork easily removed, and the gastric wound accurately sutured with catgut and then returned. The abdominal wound was afterwards brought together with silver sutures and dressed antiseptically. The operator remarked that he had departed from the method hitherto employed of causing the stomach to adhere permanently to the abdominal wall and setting up a fistula; the result would show whether his plan succeeded as well as the *suture perdue* does in intestinal wounds. A discussion took place subsequently on the possibility of succeeding by means of an electro-magnet in extracting a fork from the stomach through the œsophagus. This M. Leroy de Méricourt thought could never be done because of the small size of the cardia; but MM. Polaillon and Goubaux suggested that sufficient dilatation might, perhaps, be caused by the induction of vomiting.

CHRIST'S HOSPITAL.

THE parents of boys at the Hertford Branch of Christ's Hospital have been informed that pupils may return to the school. The summer holidays have been extended, owing to an epidemic of sore-throat at Hertford; but this has now subsided, and the continued absence of the boys is no longer necessary. Dr. Georgs Turner, the medical officer of health of Hertford, reported on Sept. 9th to the local sanitary authority that "the disease was generally of a very slight nature, and under ordinary circumstances would not have given rise to any alarm, but taking into consideration the very general prevalence of throat disease in the country, an importance which perhaps the gravity of the majority of the cases would not suggest has been attached to them. No notices of outbreaks of zymotic diseases have been received by me for some time, and, generally speaking, the town is in its usual healthy condition." The school authorities have undoubtedly acted wisely in awaiting the termination of this prevalence of throat disease before reopening the school, and the desire they have shown to guard their charges from ill-health should deserve the thanks of the boys' parents.

ACCIDENTS TO SLEEP-WALKERS.

IT seems strange, on the first blush of the matter, that so very few accidents befall sleep-walkers. The proportion of instances in which any injury is sustained by the subjects of this remarkable state of semi-sleep is very small. The explanation of the immunity is doubtless to be found in the fact that it *is* a state of semi-sleep in which the sleep-walker makes his excursion. He is sleeping only so far as *part* of his cerebrum is concerned. The rest of his brain is awake, and therefore it is really not a strange feat to walk carefully and escape injury, doing all the necessary acts of avoidance while carrying out some dream purpose, just as a walking purpose is fulfilled. This hypothesis obviously requires a very full explanation of such an accident as that by which a sleep-walker recently came by her death—namely, falling out of an open window. It is not likely to have been part of the dream to get out of a window. There must have been some error in the carrying out of the process; such, for example, as turning to the right instead of the left on leaving a room, and thus walking through a low window instead of through a doorway. As a rule the senses are sufficiently on the

alert to enable the sleep-walker to take all precautions for safety, and when he comes face to face with a difficulty involving more than automatic or subconscious self-control, he wakes. We should like to know more of the case which has just ended fatally from some competent medical observer who has studied the development of this interesting disorder in this particular instance. Surely a practitioner was consulted. No case of sleep-walking should ever be left without medical scrutiny and counsel. In sleep-walking there is the making of madness, and in its inception this disorderly sleeplessness ought to be stayed.

"CLERGYMAN'S SORE-THROAT."

IT may not be generally known that both at Oxford and Cambridge facilities are afforded to young men about to enter the Church or any other profession in which the voice may be subjected to over-exertion, to undergo a systematic course of instruction in the "management of the voice." In his earnestness to be impressive, it is very common to see a clergyman bend forward in the pulpit, protruding the body and still more the head from the proper vertical line, and in this way subjecting his voice to a much greater strain than is necessary. The huskiness which ensues often lessens the impressiveness of his discourse, and he himself becomes exhausted in the effort. The course of instruction now afforded at the Universities enables a clergyman to manage his voice so as to make the most of his vocal powers and diminish the risk of lessened tone. With the shoulders well in position and the chest expanded thereby, the head being kept upright and the under chin in a horizontal line, it is surprising how much more distinct the voice becomes, and how much further it is carried. A course of instruction in the management of the voice would do much to lessen the inconvenience of clergyman's sore-throat, and to those not yet suffering it might prove a valuable preventive. One of our present bishops, when at Oxford, encouraged the large number of young men under his following to undergo a course of vocal gymnastics. Numbers of clergymen, and some of our own profession engaged in teaching, have benefited by such a course.

"MAN-CULTURE."

THIS was the expressive and apposite term which Sir George Campbell, in his opening address to the Anthropological Section of the British Association, commended for general use in the same category as oyster culture, bee culture, and the like. The term is a good one, and it will be well if its adoption should bring the idea embodied in such high-flown phrases as "elevation of the race," "civilisation," and "education" in its broadest sense, down from the region of sentiment and emotional enterprise to the plain matter-of-fact business of daily life and policy. In truth, man-culture is a practical duty imposed by Nature on humanity, and in respect to which every one of us has a share of responsibility commensurate with the intelligence he may possess, or to which he lays claim. It is impossible for a sane and rational being to avoid the consequences of neglect in reference to this duty. They must come down on the individual or upon those to whom he stands in the relation of a trustee or progenitor. Parents towards their children, and every member of the *genus homo* towards those with whom they are brought into contact—whether mentally, physically, socially, or in whatsoever other way influence may be exerted or withheld for the good of others—are benefactors or malefactors in respect to their kind. Fetish and the idea of destiny are unquestionably inimical to the fullest development of this idea, because it begins with the propagation of life in the species, and dominates the whole of existence. Precisely as the animals below man are cultivated by foresight in reference to breed and nurture by food, exercise, and surroundings, so must man, and thus most assuredly will he, sooner or later, be cultured. The science of anthropology is the master science; and yet, while its scope is of the widest and its subject thought as far-reaching as the duration of man himself, it is necessarily a mere episode in the history of knowledge. "All about man" can never, in the nature of things, be even seen, much less can it be studied, from a single standpoint. All the sciences are tributary to the knowledge of self by humanity, and yet no man, or class or school of men, can do more than take a cursory view of the whole while essaying the special study of some one branch of knowledge in particular. Nevertheless, it is well there should be for the nonce a so-called "science of anthropology," and it will serve a useful purpose just so far as it is perceived to be only a cursory general view of what must be examined more closely in detail. If the anthropologist, as such, should make the mistake of supposing that he can ever come to close quarters, so to say, with his manifold subject, he will inevitably become mischievous, instead of being useful. Anthropology, properly estimated, is the logic of natural science; but it is not, and never can be, natural science itself. The Anthropological Society has missed its aim and impaired its usefulness by forgetfulness of the fact that in respect to no single branch of the science of man can it be more than amateurist and *dilettante*. There is reason to fear that the new branch of the British Association may fall into the same error. The only policy that can rescue it from this untoward end is that which we hope we are right in recognising as the idea running through Sir George Campbell's address—namely, that anthropology, to be useful, must take the practical and applied form of man-culture; and the instant this endeavour to realise the ideal is commenced, *anthropology*, in its scholastic conception, will be found to have fallen to pieces—an exploded idea.

CHOLERA RESEARCH.

Dr. E. O. SHAKESPEARE, who was sent by the United States Government to India with a view to investigate cholera, has returned home, and the publication of his report may be shortly expected. He is stated to have arrived at conclusions confirmatory of those of the German Cholera Commission, and therefore different from those arrived at by the English Commission. We recently drew attention to the fact that Dr. D. D. Cunningham's (a member of the English Commission) later investigations had also led him to materially modify his previous conclusions respecting the pathogenic importance of the comma bacillus.

SAFETY LAMPS IN MINES.

THE public will be pleased to notice that the lighting of mines has become of late a somewhat prominent question. This is doubtless the result of the investigation conducted by the Royal Commission. Among other conclusions arrived at by that body, the fact that safety lamps rather than naked lights should be used in all workings which were dusty or liable to invasion by gas was particularly emphasised. Fire-damp, it was shown, is not the only source of explosions. A quantity of this gas, quite insufficient in itself to account for such an accident, if brought in contact with a cloud of fine coal-dust, may easily, on the ignition of the latter, lead to a disaster. Another point brought out was, that one result of ventilation had been to cause through currents of considerable velocity in the air of mines. Consequently, when impure air thus driven along is brought in contact with the unprotected lights, or even with some forms of lamp, an explosion is not unlikely to occur. These

statements will sufficiently explain why in one mine the use of naked lights has been condemned in spite of established custom; while in other instances an effort has been made to induce proprietors to use, instead of the older kinds of lamp, a modern and improved form which is more capable of resisting currents of high velocity.

METROPOLITAN WATER COMPANIES.

MR. F. M. CORNER, medical officer of health of Poplar, has made in his annual report a pointed reference to the evils which result from the action of the metropolitan water companies in cutting off the water-supply from tenement houses on account of neglect of payment of the landlord, depriving the inmates, who are themselves innocent of any negligence, of one of the first necessaries of life. He gives a graphic description of the effect of this conduct, the choking of drains, the opening up of ground and drains, the removal of filth accumulation, and all the injury to health which follows. Specific instances are quoted where numbers of houses, each occupied by several families, were deprived of their water-supply, some for twenty-six days, others for seventeen, while a third group, which had a population of seventy-four persons, were without water for a space of fourteen days. Mr. Corner has done well in giving publicity to these facts; they cannot be too strongly brought before the public. It is a matter for profound regret that the hope of legislation last year ended in disappointment. No one wishes water companies to lose the returns which are due to them, but there will be no difficulty in giving them all the necessary powers for the protection of their own interest without resorting to a method which produces the scandalous conditions of which Mr. Corner gives account. The reply of Lord Randolph Churchill, for the President of the Local Government Board, on Monday, to a question in the House of Commons relating to metropolitan water-supply has given rise to the expectation that London will be soon protected against the water companies, who appear to put their own interest altogether before the public welfare.

INQUESTS WITHOUT NECROPSIES.

AN inquest was recently held by Mr. William Carter, coroner for North-East Surrey, at the Windmill Tavern, High-street, Lambeth, touching the death of Mr. Everard Woods, L.K.Q.C.P.I., aged twenty-six. From the evidence it transpired that deceased was assistant to a medical man in Whitechapel, and that by reason of ill-health he had quite recently resigned his situation for the purpose of taking a trip to New Zealand. He was in easy circumstances, and more than one witness deposed that there was nothing in his habits or demeanour to suggest the likelihood of his committing suicide; in fact, there was absence of any known motive to such an act. The facts, as related to the jury, seem to us far more consistent with the theory of murder. Mr. Woods, on the evening of his death, had visited a friend, and had expressed himself as feeling better. A short time after this two strange men accosted a waterman, who was standing on the Lambeth Pier, and asked if he had a boat, adding that a man had jumped from the Albert Embankment. Having given this information they disappeared, and nothing further was seen of them. They neither offered to assist the waterman to recover the body nor gave notice to the police of the tragic occurrence. On the body of deceased some silver and copper coins were found, but his gold watch and pocket-case were missing. It is not probable that he had pledged them, for he had left seven or eight sovereigns at his lodgings. No medical evidence was taken at the inquest, and, if report is true, the coroner took the statement of his officer as to the absence of bruises. The jury returned an open verdict of "Found drowned." If ever there was a case where it was important to ascertain the exact cause of death it was this. From a scientific—that is a reliable—standpoint, there was nothing tendered in evidence to show that death was not occasioned by violence, and the corpse thrown into the water. The mere *ipse dixit* of a coroner's officer on a subject requiring skilled expert inquiry is worse than worthless. It serves to beguile a jury, and it seems to satisfy the judicial mind of a coroner, but it fails to help the investigation as to when, where, and by what means a certain person came by his death. The mysteries of the Thames are not likely to diminish in number so long as they are intentionally left as "open questions." We maintain that it is the function and the duty of a coroner's court to leave no stone unturned in order to satisfy the public mind and the demands of justice, in the question of the equivocal nature of a person's death. It is high time the attention of the Home Secretary was directed to the fact that many inquests are frequently of worse than negative value.

A CORFIOTE LAZZARETTO.

SANITARY prejudice dies hard. Quarantine, in spite of wounds that ought to have been mortal, survives in full force along the Mediterranean seaboard, and, if it ever receive the *coup de grâce*, it will be from the conviction that as a preventive it is worse than the disease. Opinion, in this sense, is rapidly developing, and even finding voice. A correspondent writes from Corfu: "For five days I have been in the lazzaretto here, and I feel it my duty to send you a line for the benefit of such persons as may be contemplating a voyage to Greece. The eleven days required by the regulation to be spent here will be found far worse than in any prison. Not only is the building itself in a dangerously tumble-down condition, but the rain, the rats, the lizards, and every variety of insect have the run of the rooms, while the food is bad and the cooking worse. In the lazzaretto we have no physician. Once a day it is whispered that the doctor has been and has returned to Corfu; but few see him, and I am among the majority who find him conspicuous by his absence. One official only, the director, M. Milziade Capozzari, is courtesy itself; but pleasant manners and soothing words do nothing to make this lazzaretto life endurable, where every requisite for comfort and even health is wanting." Similar testimony as to the horrors of Mediterranean lazzarettos has already come from Italy and Spain.

THE UTILISATION OF TOWN REFUSE.

A CORRESPONDENT, writing in *The Times* of Tuesday last, comments on the difficulties with which Londoners have to contend on account of the want of system in cleansing London streets and removal of house refuse. He gives a detailed account of the Glasgow method, by which house ashes are placed upon the street in buckets, pails, boxes, or other receptacles, between the hours of 8 P.M. and 9 A.M. The whole of this matter is removed every night, and in case of the houseowner having omitted to give the dustman this opportunity, a second collection is made in the morning. Men accompanying the cart are instructed to sweep up any dust that is spilt, and during the night the streets are carefully swept, and the refuse removed in the morning round. This refuse, he states, is then deposited without the town, whence it is subsequently removed for manuring the land. It has, indeed, sufficient monetary value to warrant farmers purchasing it at rates which not only pay the cost of carriage, but make a considerable return for the cost of collection. It is a question whether the agricultural districts surrounding London would be sufficient in extent

to utilise the immense quantity of refuse which the metropolis daily produces; probably some means would have to be provided by which its destruction can be effected, especially at those seasons of the year when farmers would have no need for it. The longer distances it would have to be carried would add largely to the expense, and probably the adoption of the Glasgow method would not solve the problem in a financial sense. Nevertheless, the gain to London health of a daily collection of house dust would warrant a considerable sacrifice if this could be ensured; but it is too much to hope it will be seriously attempted until some reconstruction of sanitary administration has placed the metropolis upon a level with other towns.

THE WATER-SUPPLY TO EAST LONDON.

THE East London Waterworks Company are certainly unfortunate. Past events have not won for them any great reputation for carefulness, and now we learn that the local board of West Ham are engaged in trying to trace the cause of several severe cases of illness in the district which are stated to have been caused by tainted water. Dead eels, it appears, have been found in the pipes in High-street, Carpenter's-road, and other districts of Canning Town, and thus the inhabitants must have been drinking water tainted with putrid matter from these decaying animals. It is important to learn how, with any proper filtration worth the name, eels can pass into the supply-pipes to houses. Doubtless this will be inquired into by the directors of the company, but the conclusion is certainly suggested that sufficient care is not taken to protect drinking water from impurities. If eels can thus make their appearance in the mains, there is too much reason for fearing that matter of smaller size, but more injurious in its effects upon health, can follow the same course; and it will be interesting to note what account is given by the official examiner of the analysis of the water of this company during this period.

THE SANITARY STATE OF BATLEY.

THIS Yorkshire cloth-manufacturing town has been visited by Dr. Barry in connexion with the general survey which the Local Government have inaugurated as regards places that were suspected of containing conditions favourable to the development and spread of imported cholera. Although an excellent water-service is available, this district has progressed but little in other matters; and it is especially noteworthy that although the authority's attention has for some ten years past been prominently called to the evils connected with their neglected system of midden-privies, those structures are still found in a state which must be a cause of grave nuisance and risk to health. Dr. Barry's strong comments on the subject met with a reception that gives some hope that the subject will soon be energetically dealt with.

CHEAP MORTAR.

MUCH attention has recently been devoted to the materials used in the construction of dwelling-houses, but it will be a new fact to many that mortar is made from sediment taken from London sewers. The bye-laws of the Metropolitan Board of Works do not distinctly specify the materials of which mortar shall consist; hence it is no easy matter for district surveyors to control, even if they desire to do so, the actions of builders in this respect. The Bermondsey vestry were informed at the last meeting that certain houses in the course of construction in Long-lane were being built with mortar composed of sediment taken from the sewers and which, curiously enough, had been sold to the builder by the contractor of the Metropolitan Board of Works. The sewer deposit is washed by firms who carry on a trade by extracting from it valuable products. Probably much difficulty will be encountered in preventing the use of this material, and doubtless good will result if the Metropolitan Board are compelled to alter their bye-law for this purpose. The excellent mortar which the Manchester corporation obtain from the destruction of house refuse is sufficient proof that London could provide herself with equally good material if she would adopt the same system of destruction and assist at the same time in the solution of the vexed question of the disposal of this matter. Corporation mortar in Manchester and other towns has, to a large extent, superseded that obtained from other sources.

THE MELBOURNE HOSPITAL.

IT is high time that the authorities at Melbourne took steps to supply the city with a new hospital. The latest advices inform us that the present building, always unsuitable, has become so unhealthy that cases of erysipelas and pyæmia are alarmingly frequent; and that, in spite of the full adoption of antiseptic surgery, one of the surgeons (Mr. Fitzgerald) has declined, except in cases of urgent need, to operate any more in this building, and lately sent a patient back to Sydney rather than allow him to risk his life by submitting to an operation in Melbourne. It would seem that the erection of a new hospital is delayed mainly in consequence of the difficulties attending the selection of a site. The University Council refuse to have one erected—where, indeed, one would think it would be most advantageous—in the vicinity of the medical school of the University. But such a refusal is of a piece with the action reported by us last week, and seems to show that the Melbourne University authorities hardly comprehend the importance of a good clinical education. But whether on University ground or not, a site must be speedily found. It is a reproach to a city of upwards of 300,000 inhabitants, which boasts of the magnificence of its public buildings, that it should be provided with a hospital in which a surgeon dare not operate lest his patient should die of blood-poisoning.

"HIGH" FOOD.

THERE are "high" and "high" in the matter of the ripeness or fitness of flesh foods. We are not disposed to follow the speculative theorists who hypothecate ptomaines and "bacilli of living germs"—whatever that phrase may mean—as the effective causes of gastric and general irritation following the eating of "high game or old cheese." These speculations may be justifiable, but it is easier to suppose that something very similar to the disturbing effect of ferments or fermenting material in the case of new or *sick* wines may be produced by meat which is undergoing special varieties of decomposition. It is certain, as a matter of observation, that sometimes—under conditions not easily defined—the flesh of game will "go wrong" in the process of becoming "high"; and, without presenting any special characteristic discoverable by the aid of the microscope, irritate the stomach and produce even formidable disturbances. It would appear that the occurrence of this error in the maturing process is rather due to the influence of particular states of the atmosphere acting upon the tissues undergoing metamorphic processes, and more closely related to the condition of hydration than to that of oxygenation. We do not sufficiently appreciate the part which hydration, or dehydration, plays in the chemico-vital processes of tissue change. Water is a more important agent than simple oxygen in the changes which take place in organised matter, whether living or dead, as it is the more important factor in metabolism generally.

THE FRENCH ACADEMY OF MEDICINE PRIZES FOR 1887.

THE arrangements for the prizes offered by the French Academy of Medicine for competition during 1887 are as follows:—The Academy Prize (1000 francs): "Vaginal Hysterectomy, the Indications and Operative Procedures." The Argenteuil Prize (10,000 francs; this prize, which is sexennial, will be awarded to the author of the most notable improvement in measures for the cure of urethral strictures or to the author of the best work on the treatment of other diseases of the urinary passages. The Barbier Prize (2000 francs) will be given to the discoverer of the most efficient means of curing diseases considered incurable, such as rabies, cancer, cholera, &c. "Encouragements" may be accorded to those who come nearest to attaining the object without actually accomplishing it. The Henri Buignet Prize (1500 francs) is for the best written or printed work on the applications of physics or chemistry to medicine. Foreigners are not allowed to compete for this prize. The Capuron Prize (1000 francs): "Post-partum Involution, the Changes and Pathological States which result." The Civrieux Prize (1000 francs): "Vesical Neuralgias." The Daudet Prize (1000 francs): "Actinomycocis." Authors must present original observations made in France. The Desportes Prize (1200 francs), for the best work on Practical Medical Therapeutics. The Ernest Godard Prize (1000 francs), for the best work on External Pathology. The Hygiene of Infancy Prize (1000 francs): "A Clinical Study of Athrepsia." The Laval Prize (1000 francs), for the most meritorious medical student. The Lefèvre Prize (2000 francs): "On Melancholia." The Auguste Monbinne Prize (1500 francs) is a fund to be expended for scientific missions, &c. The Portal Prize (600 francs): "On Primary Renal Tuberculosis." The Saint-Lager Prize (1500 francs), for experiments to produce goitre in animals by administering substances extracted from the water or earth of goitrous regions. The prize will not be awarded unless the experiments have been successfully repeated by the Academy's commission. The Vernois Prize (800 francs), for the best work on hygiene. Competing essays for all these prizes must be sent to the Academy before May 1st, 1887, written in French or Latin, accompanied by a sealed envelope and a device to identify the author. The condition of concealment of the author's name does not apply to competitors for the Argenteuil, Barbier, Buignet, Desportes, Godard, Monbinne, and Vernois prizes.

NEW MEASURES AFFECTING HOUSE-BOATS.

THE campaign we opened against the pollution of the Thames by house-boats and steam launches has already led to a practical result. A bye-law has been drawn up empowering the exaction of a penalty for defiling the Thames, and is only waiting to receive the approval of Her Majesty in Council. Armed with this new enactment the Thames Conservators will be able to prevent the draining of house-boats or launches directly into the water. This is a decided step forward, but it does not suffice to make a new regulation; proper means for its enforcement must at once be organised. Every existing house-boat or launch should be inspected, and structural alterations made which will prevent the draining into the Thames. Then, again, on special occasions, such as the Henley Regatta, a scavenger boat should be provided. On the other hand, as all these new services will occasion some cost and may involve an increase in the number of persons in the employ of the authorities concerned, we cannot agree with Lord Randolph Churchill in considering it inexpedient to impose a special tax on these boats. There are taxes for men-servants, for armorial bearings, &c. &c. Such taxes commend themselves to the general approbation, as only touching those who can well afford to pay. A house-boat is equally an object of luxury, and if these pleasure contrivances involve extra outlay on the part of the community, it is only fair they should bear this expense. Feeling that good sanitation must necessitate some financial sacrifice, it is in the name of sanitation we regret extra means have not been found to defray the cost of extra work. Nevertheless, it is satisfactory to note that our protests have been well received, and are likely to bring about, and without further delay, at least a partial amelioration.

A SPANIARD ON THE BRIGHTON MEETING.

IN some letters to the leading Spanish medical journal, *El Siglo Médico*, Dr. S. Buisen gives an account of the gathering of the British Medical Association at Brighton, more from the social than from the scientific point of view. He compares the Dome to the theatre in the Alhambra, though, as he says, the former is much the larger. The Pavilion also pleased him, though, like other people, he could not help criticising its extraordinary style or styles of architecture. However, both buildings were splendid (*grandiosos*), but "it is well known how the English do these things." The excursions and the hospitality, too, were not thrown away on our Spanish *confrère*, who appears thoroughly to have enjoyed himself. What seems to have struck him especially was that such a gathering of from 450 to 500 medical men should have been assembled, arranged for, and entertained, many of them with their families, without any hitch having occurred. He is quite aware that such bodies as the British Medical Association are not formed in a day, and that, much as he would like to see such an assembly of his brethren in "dear old Spain," it can hardly be expected on such a scale for a good many years to come. There can be no reason, however, why scientific practitioners in Spain—of whom, by the way, there is a greater number than most people are aware of—should not from the starting-point of some of the existing societies form a similar association.

THE POPE'S MODEL CHOLERA HOSPITAL IN ROME.

A CORRESPONDENT of the *Globe* gives an interesting account of the "model cholera hospital" which the Pope has caused to be erected in Rome for the accommodation of cholera patients in case of an epidemic. Contact with the outer world is carefully guarded against by grated windows, telephones, and by a revolving barrel with half its circumference open, by which provisions are taken into the hospital. The water-supply is drawn from a well, and is quite separate from the city supply. The drain is formed of an iron tube sixteen inches in diameter, the joints being hermetically sealed with lead. There is a disinfecting boiler in which corrosive sublimate is placed. There is a room called the "chamber of observation," which has a staircase leading up to the first floor. In this room dead bodies are placed for a given time, as it is well known that cholera patients often show signs of being quite dead when really only apparently so. The room is, by means of an electric apparatus, in communication with the director's office. The body being laid on a bed, both hands are put into a sort of copper muff; between the hands is put an instrument so sensitive that, should there be the slightest movement of the hands or any other part of the body, this instrument would instantly close the electric circuit, and the bell in the director's office would be set ringing; at the same moment another instrument registers the number corresponding to the bed upon which the body is lying. The chamber is warmed by steam so as to facilitate resuscitation. The laboratory is provided with a gasometer for the storage of oxygen, which is taken to

the wards for administration in gas bags. On the ground floor are four wards for doubtful cases; should they get worse they are sent up in the lift to the cholera wards above, their clothes and bed-linen being immediately burned. Another room is set apart for women in childbirth, and there are two more for undressing patients, so that the infected clothes may be destroyed, the Pope furnishing new clothing for all recovered cases. The cubic space allowed for each bed is thirty-six cubic metres. The ventilation is carried on by means of funnels with gas jets below. The chapel is in communication with the sacristy of St. Peter's, so as to form an easy access for the Pope should he wish to visit the hospital; but before returning into the sacristy his Holiness and suite would have to go into a room near it for disinfection. In the event of there being more cases than the hospital can hold, provision has been made for building large sheds in the garden. This hospital was begun in October, 1884, and finished in April, 1885. When the cholera was raging with such violence in Naples, Leo XIII. determined upon making preparations should the scourge visit Rome. It has never been necessary to use it, but it is always ready in the event of an outbreak, and should prove of much use in extirpating it.

THE DOCTOR'S FEE IN CASES OF SUICIDE.

THE case of a would-be suicide refusing to pay the doctor who has saved his life, which was mentioned in our "Northern Counties Notes" of last week, is matched by an incident which occurred in Berlin, and which is just now going the round of the German medical journals, concerning a man who went into a beershop and poisoned himself there. The landlord despatched his daughter for a doctor, who did what he could for the man and sent him to the hospital. When he recovered he refused to pay the doctor on the ground that he had not desired his services. The police, too, declined to settle the account, as also did the landlord, though it amounted only to the modest sum of four shillings. The Berlin Medical Defence Society then took the matter up and sued the landlord, who, in turn, was defended by the Publicans' Society, and though the matter has now been in litigation for more than four years, the doctor, instead of getting his four shillings, has had to pay the costs, which to us, considering the circumstances, appear little enough, being only £2 7*s.* 3*d.*, yet nevertheless too much good money to throw after bad.

STATISTICS OF CEREBRAL TUMOURS.

AN instructive piece of statistical work has been contributed to the current number of Guy's Hospital Reports by Dr. Hale White, on the cause, operative treatment, mode of death, and general symptoms of 100 cases of cerebral tumour collected from the post-mortem records of Guy's Hospital. Ninety-nine of the cases occurred during the years 1872-84, both inclusive; the total number of necropsies was 5850, or about 450 a year, which gives 1 tumour of the brain for every 59 that come into the post-mortem theatre. Of the 100 cases, the growth was tubercular in 45, gliomatous in 24, sarcomatous in 10, carcinomatous in 5, gliosarcomatous in 2, cystic in 4, gummatous in 5, lymphomatous in 1, myxomatous in 1, and of doubtful nature in 3; 34 of the tubercular cases occurred in the male sex. There is much useful information in the paper, but the chief drift of the investigation was to ascertain, as far as possible, how many cases could have been treated surgically after the fashion of recent times. The conclusion was arrived at that only 3 of the tuberculous cases could have been benefited by operation, that at the outside 6, and probably only 4, of the gliomata, 1 only of the sarcomata, none either of the carcinomata or of the gliosarcomata, perhaps 2 of the cysts, the myxoma, but not the lymphoma, and 2 of the doubtful cases. Therefore, of the whole number of cases 10 might certainly have been operated upon, and probably 14. It will not be forgotten that before this number could have been treated surgically it would have been necessary to diagnose the seat of the tumour, even so late in the case as shortly before the death of the patient would suffice, whilst, of course, earlier in their histories many others might have been operated on with good prospect of success.

THE HEALTH OF VICTORIA.

ACCORDING to the last report of the Central Board of Health of Victoria, that colony has to face an evil which it has cost this country many millions to overcome, even to the limited extent to which it has been dealt with. We refer to the pollution of streams. Complaint is made in the report that there is no sufficient power to deal with the steadily increasing pollution of streams by animals and by trade refuse. In the same paragraph dealing with this subject, the question of the filtration of potable waters is discussed, and there seems a tendency to put greater trust in filters than is justified in the present state of our knowledge of the relation of organisms to disease in the human subject. Whilst filtration has its value, it should never be relied on as capable of removing the specific poison of such a disease as enteric fever from a potable water. Enteric fever is practically endemic in Melbourne, and with the first quarter of the year an outbreak may generally be looked for. It is most probably connected—to an important extent at least—with the contamination of water-supplies that are used for human consumption.

PROFESSIONAL THIEVES AND DOCTORS' HOUSES.

IT is well known that the houses of medical men offer too many facilities for the operations of professional beggars and thieves. It is not so well known how much trouble it gives them to bring the law to bear on such characters. *The Times* reported a few days ago the case of William Thomas, aged eighty, who had called at the house of Dr. Bateman, Longridge-road, Earl's-court, under the pretence of being a friend of a sister in India. He was admitted, and at one stage left in the room alone, from which he took a hypodermic syringe. Thomas and his methods have long been well known to the Society for repressing Mendicity. But he has been only three times convicted in well-nigh forty years. On this occasion Dr. Bateman had to attend in court on four or five successive days before the case was heard. It may now be hoped that Thomas's active criminal career is over. But the moral of such cases is to be more chary of leaving strangers alone in doctors' houses.

HOW TO EXTINGUISH COMMON PARAFFIN LAMPS.

WE say extinguishing *common* paraffin lamps advisedly, because all the better sorts are provided with a special apparatus for covering up the flame. It is wrong, perhaps dangerous, to blow down the chimney, and it is possibly little, if at all, less dangerous to turn the wick down suddenly. The best plan is to blow not down the chimney, but across the flame at the base of the chimney through the perforated wick chamber, and, of course, always in the direction of the slit through which the wick rises. A very little puff will suffice, and there is no danger in the act, because the flame is not driven down into the oil chamber but simply blown off the wick horizontally. Care must always be taken to blow in the direction of the slit, or a great deal of breath may be wasted in vain.

A BIRMINGHAM CORONER ON HOSPITALS.

SOME words are reported by the *Birmingham Daily Gazette* as used by the coroner in reference to hospitals which require explanation. At an inquest on an illegitimate child, which had been taken to a hospital, and not to a doctor, the coroner said, "these hospitals are curses instead of being a blessing, and I wonder people subscribe to them." Surely our contemporary has unintentionally misreported the coroner, or the coroner has spoken in haste. In this particular case it is probable that a doctor should have been consulted; but if a coroner allowed his disapproval of conduct in a particular case to lead him to such a deliverance on hospitals, he owes it to himself and to them to correct his hasty judgment by one more in accordance with the general sense of mankind.

FOREIGN PROFESSORIAL APPOINTMENTS.

Lille (Faculté Mixte). — M. Baudry, Agrégé of the Medical Faculties, has been appointed Professor of External Pathology.

Lyons (Faculté Mixte).—M. Fouchier has been appointed Professor of Clinical Obstetrics.

Montpellier (Faculté de Médecine).—M. Chalot, Agrégé of the Medical Faculties, has been appointed Professor of External Pathology. M. Sarda has been appointed Chief of the Medical Clinic, M. Diffre Chief of the Clinic for Diseases of Old Age, and M. Breton Chief of the Children's Clinic.

Strasburg.—Dr. Götte of Rostock has been nominated to the Professorship of Zoology.

Havana.—The chair of Pharmacy has become vacant by the death of Dr. Don Manuel Vargus Machuca.

THE Islington Board of Guardians have addressed a letter to the Local Government Board calling attention to the very inadequate accommodation provided by the Metropolitan Asylums Board for lunatic children, and at the next meeting of the Asylums Board an endeavour is to be made to induce the managers to utilise the Winchmore-hill Hospital for the purpose. This hospital was erected at an enormous cost, but has been disused for some time, and is accounted a very suitable place for the accommodation of imbecile cases, until the new wings now in course of erection at the asylum at Darenth have been completed.

THE *London Gazette* of the 21st inst. contains the texts of orders issued by the Privy Council relating to anthrax and rabies. The orders, which are applicable to England and Wales and Scotland, take effect on the 1st prox., and contain regulations respecting the duties of the police on receiving notice of the existence of either of the diseases, the public warning of such existence, the regulations of the local authority as to movement of the diseased animals and as to cleansing and disinfection, the obligations on owners, the destruction of the infected animals, and the disposal of the carcases.

WE much regret to record the death of Dr. Samuel Woodman, the trusted adviser of the late Sir Moses Montefiore, and a local physician of considerable reputation. About a month ago, the deceased proceeded to the Continent with the intention of visiting Switzerland, but at Nuremburg he contracted typhoid fever and returned at once to Ramsgate to die.

THE literature of medicine has just been enriched by the publication, under the Padre Checcucci's editorship, of the "Letters, Scientific and Familiar, of Francesco Puccinotti," whose great "History of Medicine" is a classic among his countrymen, and whose work in medical jurisprudence and in the etiology of epidemics is of European reputation.

THE great Congress of the Pharmacists of Italy, which but for the cholera would have been held two years ago, will now meet at Turin on the 4th of October next. Among the subjects on the discussion list are the new code of public health, the modifications to be effected in the university curriculum so as to admit of all pharmacists having an academic qualification, the prevention of abuses, and other means of elevating the standard of the profession. The directing committee has spared no pains for the accommodation of visitors, native and foreign.

AT a meeting of the Perthshire Medical Association on September 10th, specially called for the purpose of considering the representation of the profession in Scotland in the Medical Council, it was unanimously agreed to recommend the candidature of Dr. Sinclair, of Dundee, to the members of the Association.

MR. CROOKSHANK'S Practical Bacteriology has been published in French by M. Carré of Paris. It represents the English edition, revised, and augmented by an appendix of thirty pages upon Photomicrography, illustrated with four photomicrographs, reproduced by autotype in special colours, and woodcuts.

THE Governor of the Isle of Man has, it is reported, informed the members of the medical profession who reside under his jurisdiction that the fee of £1 1*s*. for a post-mortem examination by order of the coroner will in future be reduced to 16*s*.

DR. SYMES THOMPSON has chosen as his subject of the Gresham Lectures this year the Infectious Diseases of Childhood. The course will extend from Oct. 5th to the 8th inclusive.

THE Duke of Westminster, K. G., has consented to accept the office of president of the London Temperance Hospital, in the room of the late Mr. Samuel Morley.

THE Russian Consul in Kashgar reports that the epidemic which has broken out there is typhus, and not cholera, as at first believed.

THE Harveian Oration will be delivered by Dr. Pavy at the Royal College of Physicians on Monday, October 18th, at 4 P.M.

THE SANITARY CONGRESS AT YORK.

THE proceedings in connexion with the ninth annual Congress of the Sanitary Institute of Great Britain and Ireland were opened on the 21st inst., at York. The members of the institute attended service at the Minster in the morning after which a formal reception by the Lord Mayor followed by a luncheon, was held. In the afternoon the Lord Mayor opened a Health Exhibition in connexion with the Congress. The exhibits are divided into five sections—(1) building materials, construction, and machinery; (2) water-supply and sewerage; (3) heating, lighting, and ventilation; (4) personal hygiene, foods, and disinfectants; and (5) miscellaneous. The Exhibition will remain open until the 16th prox.

In the evening the inaugural meeting of the Congress was held in the grand saloon of the Yorkshire Institute, where there was a large attendance to hear Sir T. Spencer Wells deliver his presidential address, an abstract of which we publish in another column.

On the 22nd inst., Professor F. de Chaumont, the chairman of the section of Sanitary Science and Preventive Medicine, gave an address, in which he treated of the germ theory of disease. A paper on the Economy of Cremation

was then read by Mr. W. Eassie, and Mr. W. Robinson followed with a paper on Beauty and Health *versus* Horror and Decay in our Cemeteries. Sir T. Spencer Wells opened the discussion, and expressed his approval of cremation. Several other members having spoken, Mr. Eassie replied, and the Conference adjourned.

In the afternoon, the Congress was resolved into a conference of medical officers of health. The following papers were read:—The Tenure of Office and Appointment of Medical Officers of Health, by Dr. R. Bruce Low; the Notification of Infectious Diseases, by Dr. Edward Seaton; Organisation and Administration for the Control of Infectious Diseases, by Mr. F. J. Sykes; and Hospitals for Infectious Cases—should they be Free or a Charge made for Maintenance? by Mr. Francis Vacher. A brief discussion followed the reading of these papers.

In connexion with the Health Exhibition, of which mention has previously been made, medals were awarded, amongst other exhibitors, to the following: to Dr. Jaeger's Sanitary Woollen System, London, for sanitary clothing; to Messrs. Ward and Co., Bradford, for sanitary clothing; and to the Doeker Hospitals and Huts Factory, London, for portable hospital. Certificates of exhibits for which medals had been previously given were awarded to F. C. Calvert and Co., Manchester, for disinfecting carbolic acid; W. Lyon, London, for steam disinfector; Morrell's Sanitary Appliance Company, Manchester, for portable cinder-shifting ash-closet; and Moule's Earth-closet Company, London, for earth-closet.

SANITARY IMPROVEMENTS IN NEWCASTLE-ON-TYNE.

TWELVE years have elapsed since THE LANCET Sanitary Commissioners paid their visit to Newcastle-on-Tyne, when collecting materials for their Report on the "Health of Operatives engaged in Chemical Manufactories." At the time our Commissioners were conducting their inquiries in the town and neighbourhood, Newcastle was passing through a severe crisis. The death-rate had risen to an unprecedented height, caused chiefly by an extremely fatal epidemic of scarlet fever, but also by the prevalence of other diseases, such as erysipelas, low forms of pneumonia, &c., attributable to defective sanitation. So deplorable was the state of things that the Local Government Board had sent down an inspector to make a special report on the condition of the town, and it will be remembered that Dr. Gwynne Harries, who was the gentleman appointed to conduct the inquiry, succumbed to scarlet fever, contracted shortly after his arrival at Newcastle. Under such circumstances it was natural that our Commissioners should interest themselves in the sanitary condition of the town, though the original inquiry was limited to the influence of certain occupations upon the health of the operatives engaged. Under the guidance, therefore, of Mr. H. Armstrong, the then recently appointed officer of health, they made themselves acquainted with the chief features of the case and most of the existing evils, and truly these were most discouraging, and sufficient to dishearten those who were then setting to work to remedy past neglect and to construct plans for permanent sanitary improvement. During the past fourteen years, however, the sanitary progress has been very great, and the old town of Newcastle may be spoken of as almost a new city. Over £220,000 have been expended by the Corporation in effecting the necessary improvements. Of this, £69,000 have been spent in dealing with insanitary dwellings under the Local Improvement Acts, and £20,000 for the erection of a new hospital for infectious diseases, exclusive of the cost for land. Baths and washhouses have cost £45,000, whilst no less than £85,000 have been expended on parks and open spaces. In addition to this, the town is now abundantly supplied with water, which is much above the quality of the old supply, and it is now proposed to deliver this water by tap on each landing of every tenement dwelling in the city. In 1884 a house-to-house visitation resulted in the issue of upwards of 12,000 notices for defects of various kinds, nearly all of which were remedied satisfactorily. Owing, no doubt, to the improvement of the tenement property, there is very little overcrowding of rooms; thus, out of 13,329 tenements in the city, there were only 362 instances in which the cubic space per person was less than 300 cubic feet each. The system of refuse removal has been much improved, the old privy middens are being abolished in favour of waterclosets, and the ordinary day refuse and ashes are now for the most part removed twice a week in tubs—a system which might well be tried in London. But, above all, the Corporation of Newcastle deserve the greatest credit for their energy in providing in the most complete manner, accommodation for coping with infectious diseases. In 1882 they obtained the power for the notification of such diseases, and the operation of this has been highly advantageous, since many outbreaks have been dealt with at their inception. At the present time ninety beds afford accommodation for small-pox and fever cases, and this, when the new hospital which was in course of erection is completed, will be brought up to 132 beds. In addition to this, the Port Sanitary Authority will shortly have a floating hospital for the isolation of infectious cases brought to the town by the river. The success that has been obtained at Newcastle in the sanitary campaign is, no doubt, in great measure due to the untiring zeal and energy of the health officer, Mr. H. Armstrong, but his efforts would have been of little avail—as we have had sad examples elsewhere—but for the hearty co-operation of the people of Newcastle and their representatives in the Corporation. Much money has been expended, no doubt, but it has been well spent, not frittered away; and Newcastle, with its new water-supply, good tenements, magnificent baths and washhouses, and its extensive and beautiful parks, can show an example to any town in the kingdom.

PRIZES AND SCHOLARSHIPS IN THE METROPOLITAN MEDICAL SCHOOLS.

THE following is a list of the Scholarships and Principal Prizes gained at the various Metropolitan Schools of Medicine during the session 1885-86:—

ST. BARTHOLOMEW'S HOSPITAL.—Lawrence Scholarship and Gold Medal: H. Davidson. Brackenbury Medical Scholarship: H. J. Tylden. Brackenbury Surgical Scholarship: A. Lyndon. Senior Scholarship in Anatomy, Physiology, and Chemistry: G. Heaton. Open Scholarships in Science: H. R. Jones, J. Kerr, and C. R. Stevens. Preliminary Scientific Exhibition: E. J. P. Olive. Jeaffreson Exhibition: J. Williamson. Kirkes Gold Medal: W. N. Hamer. Hichens Prize: F. S. Locke and F. S. J. Lulham. Wix Prize: Magnus Olaf Manson. Harvey Prize: B. Pierce. Junior Practical Anatomy (Treasurer's Prize): G. L. Rolleston. Senior Practical Anatomy (Foster Prize): B. Pierce. Junior Scholarships: G. L. Rolleston, W. M. A. Eccles, and W. F. Oakshott.

CHARING-CROSS HOSPITAL.—Llewellyn Scholarship, Certificate, and £25, J. G. Victor Sapp. Golding Scholarship, Certificate, and £15: P. J. Duncan. Governor's Clinical Gold Medal: Ernest A. Snape. The Pereira Prize, Certificate, and £5: G. O. Richards and Ernest A. Snape (equal). Senior Anatomy—Silver Medal: A. E. Baker. Junior Anatomy—Bronze Medal: Charles Gibbs. Senior Physiology—Silver Medal: P. J. Duncan. Physiology—Silver Medal: J. F. Colyer. Practical Physiology—Silver Medal: B. F. Jackson. Chemistry—Silver Medal: Charles Gibbs. Practical Chemistry—Silver Medal: Charles Gibbs. Medicine—Silver Medal: J. G. Victor Sapp. Practical Medicine—Silver Medal: J. G. Victor Sapp. Surgery—Silver Medal: J. G. Victor Sapp. Practical Surgery (Prize, a Minor Surgery Operating Case): G. O. Richards; Silver Medal: J. G. Victor Sapp. Botany—Silver Medal: P. J. Duncan. Materia Medica—Silver Medal: P. J. Duncan. Midwifery—Silver Medal: J. S. W. Chitty. Forensic Medicine—Silver Medal: J. S. W. Chitty. Pathology—Silver Medal: J. G. H. Carter. Dental Surgery—First Prize, Certificate, and £6 6s.: F. M. Ludbrook; Second Prize, Certificate, and £4 4s.: J. F. Colyer.

ST. GEORGE'S HOSPITAL.—Scholarship, value £125, open to sons of medical men: James McEnery. William Brown Exhibition, £100 per annum, tenable for two years: Arthur Heygate Vernon. Brackenbury Prize in Medicine: William Lee Dickinson. Brackenbury Prize in Surgery: Henry Goodale. Treasurer's Prize: William Lee Dickinson. Thompson Medal: Humphrey Wheeler. Sir Benjamin Brodie's Prize in Clinical Surgery: Henry Goodale. Acland Prize in Clinical Medicine: William Lee Dickinson. Henry Charles Johnson Memorial Prize in Anatomy: Cyril Ogle.

Pollock Prize in Physiology: Cyril Ogle. Sir Charles Clarke's Prize for Good Conduct: Hugh Lawson. First-year Proficiency Prize: Lionel William Seymour. Second-year Proficiency Prize: William Marshall Davidson. Third-year Proficiency Prize: Ernest Le Cronier Lancaster.

GUY'S HOSPITAL.—Treasurer's Gold Medal for Clinical Medicine: John Wychenford Washbourn. Treasurer's Gold Medal for Clinical Surgery: Frédéric François Burghard. Gurney-Hoare Prize for Clinical Study: Richard Moody Ward. Beaney Prize for Pathology: John Wychenford Washbourn. Mackenzie Bacon Prize for Ophthalmoscopy: Sidney Wacher. Mackenzie Bacon Prize for Nervous Diseases: Edward Wilberforce Goodall. Burdett Prize for Hygiene: William Henry Bowes. Sands Cox Scholarship: Alfred Parkin. Michael Harris Prize for Anatomy: Alfred Parkin and Robert Devereux Mothersole (equal). Fourth-year Students: Frédéric François Burghard, first prize; Francis Stanhope Hawkins, second prize. Third-year Students: Arthur Edward Poolman, first prize; Ernest Henry Starling, second prize. Second-year Students: Alfred Parkin, first prize; Robert Devereux Mothersole, second prize. First-year Students: Frederick William Hall, prize (£50).

KING'S COLLEGE.—Winter Session.—Anatomy: Thomas Boswell Beach. Physiology: Peyton Todd Bowman Beales. Chemistry: Herbert Stanley Ballance. Comparative Anatomy: John Henry Leonard. Surgical Clinical (Professor Wood): Charles Drinkwater. Surgical Clinical (Professor Lister): Arthur E. Hensley. Medicine: Philip Henry Hensley and Jeremiah Penney (equal). Surgery: Charles Drinkwater. Clinical Medicine: Francis William Jollye. Summer Session.—Practical Physiology: James John N. Morris. Practical Biology: Hamilton Ashley Ballance. Botany: Arthur Robert Savell. Forsenic Medicine: Robert James Carter. Obstetric Medicine: Robert James Carter. Materia Medica: Richard Tanner Hewlett.

LONDON HOSPITAL.—Entrance Science Scholarships for proficiency in the subjects required for the Preliminary Scientific M.B. Examination at the University of London. £60 Scholarship: D. Brown. £40 Scholarship: J. N. Collins. Buxton Scholarships for proficiency in the subjects required for the preliminary examinations—£30 Scholarship: T. Jones. £20 Scholarship: Y. H. Mills. Clinical Medicine—£20 Scholarship: G. C. W. Wright. Clinical Surgery—£20 Scholarship: H. G. Lys. Clinical Obstetrics—£20 Scholarship: L. C. E. Calthrop. Lethoby Prize for proficiency in Chemistry—£30: J. S. Hicks. Anatomy and Physiology—£20 Scholarship: D. Brown. Dressers' Prizes for zeal, efficiency, and knowledge of minor surgery—£15 Prize: O. M. Jones. £5 Prize: W. H. Coates.

ST. MARY'S HOSPITAL.—Scholarships in Natural Science of £60 each: G. A. Simmons and G. Watson. Scholarships in Natural Science of £50 each: C. E. Lansdowne, H. A. Caley, and W. Low. Scholarship of 50 guineas for students from Epsom College: J. J. Knox. Exhibitions in Natural Science, of £30 each: A. R. Chater and H. F. Mantell. Scholarship in Pathology: J. J. Clarke, W. Williams, and S. A. Tidey. Summer Session, 1885, second year—Midwifery: J. T. Bays. Medical Jurisprudence: J. T. Bays. First year—Materia Medica: F. W. Lewitt. Botany: F. W. Lewitt. Practical Chemistry: F. W. Lewitt, A. Hickley, P. J. Kingston, and W. S. Sharpe (all four equal). Winter Session, 1885-86, third year—Medicine: H. C. Barr and H. S. Collier (equal). Surgery: H. S. Collier. Practical Surgery: H. S. Collier. Pathology: H. F. Collier. Third and fourth years—Clinical Medicine: R. Callender and H. C. Phillips (equal). Clinical Surgery: H. C. Barr and G. Spear (equal). Ophthalmology: E. Evans and J. J. Clarke. Second year—Anatomy: A. Lowers. Physiology: F. W. Lewitt. First year—Anatomy: A. E. Shaw, first prize; G. Watson, second prize. Physiology: H. A. Caley, first prize; A. E. Shaw, second prize. Chemistry: G. A. Simmons. Special prizes for first-year students for proficiency in Anatomy, Histology, Materia Medica, and Chemistry: F. W. Lewitt. For second-year students for proficiency in Anatomy, Physiology, Midwifery, and Medical Jurisprudence: J. T. Bays. For third-year students for proficiency in Medicine, Surgery, Pathology, and Operative Surgery: W. Holloway.

MIDDLESEX HOSPITAL.—Broderip Scholarships for the best examination at the bedside and in the post-mortem room: First, W. G. Nash; second, W. B. Cockill. Governor's Prize: E. E. Lewis. Hetley Prize: W. B. Cockill. Murray Medal and Scholarship: W. G. Nash. Exhibition in Anatomy: First year: J. K. Clarke; Lyell Medal, E. T. Larkham. Class Prizes—Medicine, W. G. Nash. Surgery: Kershaw. Practical Medicine: W. G. Nash. Practical Surgery: H. Baldwin. Anatomy: J. A. Hutton. Dissections: C. E. Bennett. Physiology: J. K. Couch and T. H. Clarke. Chemistry: C. H. Fazan. Midwifery: E. E. Lewis. Forensic Medicine: J. E. Hancock. Pathological Anatomy: W. H. Vickery. Materia Medica: H. A. Daniel. Practical Chemistry: H. A. Daniel and C. H. Fazan (equal). Botany: C. H. Fazan. Practical Physiology: H. A. Daniel. Comparative Anatomy: Mr. Strong. Entrance Scholarships: First, R. A. Earle; second, F. A. Wagstaff. Summer Entrance Scholarship: F. Harsant.

ST. THOMAS'S HOSPITAL.—Summer Session, 1885.—First-year Students: F. C. Abbott, College Prize, £15, and Certificate; T. P. Cowen, College Prize, £10, and Certificate. Second-year Students: Charles Henry Eccles, College Prize, £15, and Certificate; E. Webster and E. H. Wright (equal), College Prize, £10, and Certificate. Third-year Students: S. W. Wheaton, College Prize, £15, and Certificate; and H. J. Macevoy, College Prize, £10, and Certificates (equal). Winter Session, 1885-86.—Entrance Science Scholarships: A. F. Stabb, Scholarship, £100, and Certificate; S. G. Toller, Scholarship, £60, and Certificate. First-year Students: A. F. Stabb, the William Tite Scholarship, £30, and Certificate; A. C. Lankester, College Prize, £20, and Certificate; C. R. Box, College Prize, £10, and Certificate. Second-year Students: F. C. Abbott, the Peacock Scholarship, 40 guineas, and Certificate; T. P. Cowen, College Prize, £20, and Certificate; H. G. Turney, College Prize, £10, and Certificate. Third-year Students: C. H. Eccles, College Prize, £20, and Certificate; E. Hobhouse, College Prize, £15, and Certificate: F. Fawssett, second tenure of the Musgrave Scholarship of 40 guineas, with College Prize, £10, and Certificate. The Solly Medal and Prize of £25: E. Solly. Practical Medicine: S. W. Wheaton, the Mead Medal; H. J. Macevoy, a Bronze Medal. Surgery and Surgical Anatomy: J. H. Tonking. Cheselden Medal: L. A. Bidwell. For general proficiency and good conduct, H. J. Smith, the Treasurer's Gold Medal.

UNIVERSITY COLLEGE.—Entrance Exhibitions: £100, T. L. Pennell; £60, S. B. Mitra; £40, J. J. Macnamara. Atchison Scholarship (£45 per annum for two years): H. H. Brown and S. E. Holder (equal). Atkinson-Morley Scholarship (£45 per annum for three years): R. Johnson. Bruce Medal: H. H. Brown. Winter Session—Surgery: Gold Medal, H. H. Brown; Silver Medals (equal), E. R. St. Corbin and S. E. Hodder. Physiology: Senior Class, Gold Medals (equal), H. M. Fernando and J. L. Firth; Junior Class, Silver Medal, C. A. Kent. Anatomy: Gold Medal, G. B. M. White; First Silver, H. M. Evans; Second Silver, W. W. H. Tate. Junior Class, Silver Medal, L. E. Hill. Medicine: Gold Medal, G. E. Rennie; Silver Medals (equal), K. N. Bahadhurji and W. P. May. Practical Surgery: Erichsen Prize, E. R. St. C. Corbin. Practical Chemistry: Gold Medal, H. A. Eccles; First Silver, H. Tilley; Second Silver, A. Vaughan. Pathological Anatomy: Practical course, Tuke Medal, S. E. Holder. Clinical Medicine: Senior Class, Fellowes Gold Medals, Sydney E. Holder; Silver, J. J. Lister and F. S. Toogood (equal); Junior Class, Fellowes Silver Medal, C. W. Jecks. Clinical Dental Surgery: Prize, E. R. St. C. Corbin. Summer Session—Medical Jurisprudence—Gold Medal, E. R. St. Clair Corbin. Chemistry: Gold Medal, M. L. Dutta; First Silver, S. H. Collins; Second Silver, M. L. Agarwala. Practical Chemistry: Senior Class, Gold Medal, H. M. Fernando; Silver Medal, J. P. Parkinson. Organic Chemistry: Silver Medal, O. K. Williamson. Zoology and Comparative Anatomy: Gold Medal, H. Tilley; First Silver, A. C. Stevenson; Second Silver, Florence G. Longbottom. Materia Medica: Gold Medal, E. O. Turner; Silver Medals, R. W. Boyce and H. M. Fernando (equal). Midwifery: Senior Class, Gold Medal, S. E. Holder; Silver Medal, K. N. Bahadhurji. Junior Class, Silver Medal, H. P. Dean. Pathological Anatomy: Filliter Exhibition of £30, G. Rennie; Silver Medal, H. P. Dean. Physiology: Histology and Practical Histology—Gold Medal, S. H. Snell; Silver Medal, D. Brown. Ophthalmic Medicine and Surgery: Silver Medal, G. E. Rennie. Hygiene: Silver Medal and Prize, T. S. Short. Clinical Medicine: Fellowes Gold Medal, W. H. Blake; Fellowes Silver Medal, K. N. Bahadhurji. Junior Class: Fellowes Silver Medal, Harold Dane.

WESTMINSTER HOSPITAL.—Entrance Exhibitions, £80: F. B. Grove and S. P. Matthews (equal). £40 (summer): Alfred T. Coleman. Treasurer's Prize for Winter subjects: L. Lewis. President's Prize for Second-year subjects: J. R. Plant. Class Prizes, Winter Session—Anatomy: J. R. Plant. Physiology: J. R. Plant. Histology: J. R. Plant. Chemistry:

L. Lewis and E. J. Pritchard (equal). Medicine: H. B. Brackenbury. Surgery: C. Burt. Summer session—Forensic Medicine and Toxicology: C. S. Vines. Midwifery: C. Burt. Pathology: J. R. Plant. Practical Chemistry: A. T. Coleman. Botany: A. T. Coleman. Histology: P. Templeton. Materia Medica: E. J. Pritchard.

DENTAL HOSPITAL OF LONDON.—Saunders Scholarship: H. Williams. Winter Session—Mechanical Dentistry: First Prize, H. J. Moore; Second Prize, H. Williams. Metallurgy: First Prize, H. Williams; Second Prize, F. M. Ludbrook. Operating Prize: J. F. Colyer. Summer Session—Dental Anatomy: First Prize, H. Williams; Second Prize, J. Moore. Dental Surgery: First Prize, A. E. Baker; Second Prize, F. M. Ludbrook. Ash's Prize: A. T. Croucher. Students' Society's Prize: C. A. Barstow.

NATIONAL DENTAL HOSPITAL COLLEGE.—Rymer Medal: Albert Jones. Dental Anatomy: Albert Jones. Dental Mechanics: E. C. Fisk. Dental Surgery: R. J. Lovitt. Operative Dental Surgery: E. C. Fisk. Dental Materia Medica: J. Lankester. Mechanical Work: C. B. Phillips. Students' Society Prize: C. A. Pattinson.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birmingham Urban District.—The quarterly report for the period ending July 3rd last shows that the sanitary work of the health department continues to be vigorously prosecuted. Dr. Alfred Hill reports that over five thousand notices for the abatement of nuisances were issued, and that 1126 infected articles were dealt with at the disinfecting station. One small-pox patient and 98 cases of scarlet fever were isolated in one or other of the borough infectious hospitals.

Nottingham Urban District.—After paying a well-merited tribute to Dr. Seaton, his predecessor in the office of health officer, Dr. Whitelegge gives the population of the borough during 1885 as 211,424, with a birth-rate of 34·5 and a death-rate of 18·2 per 1000 living, the death-rate being the lowest on record. The death-rate from the so-called seven principal zymotic diseases was 2·2 per 1000, the average for the preceding seven years having been 3·4. Pointing to a reduction which has been steadily taking place in the scarlet-fever mortality, Dr. Whitelegge reminds his authority that one of the results of this reduction is that the number of protected survivors is becoming less and less. Epidemics of this disease are certain to recur, and the next one in Nottingham will find a much larger number of susceptible persons than during the past few years, the available material in which the epidemic will work being added to year by year by births. Hence it is that during the intermissions sanitary authorities should prepare in advance the means of staving off epidemics. Referring to the compulsory notification of infectious diseases, it is stated that this principle has now been adopted by thirty-nine English communities. In Nottingham it is shown that one principal result attained has been a reduction in the ratio of deaths to known cases, and this is significantly shown in a tabular form. The decline in the deaths commences with the commencement of compulsory notification; the decline is continuous, and it has reached a point considerably below the usual level of non-epidemic years. As regards scarlet fever, the diminution is greater than that which has obtained throughout the country generally, and it has been markedly constant in the notified diseases, whilst it has not taken place as regards other infectious diseases. And this result, it is contended, has been brought about by means of the improved sanitary administration and control of infection which has become possible by reason of it; and amongst other things it is pointed out that notification has led to disinfection being now a reality. It is also stated that the system has caused no disturbance of the relations between medical men and their patients, nor has it led to concealment of disease and the employment of unqualified practitioners, as was anticipated by some. An important improvement is reported as regards the hospital for infectious diseases, a large site having been obtained for the erection of an entirely new permanent set of buildings. The pail-system of excrement removal has reached an important position in Nottingham; 1100 new ones were provided in 1885, raising the total number of these substitutes for the old midden-privy to no less than 32,786. This form of closet is said only to fail where the habits of the people are utterly degraded.

Sheffield Urban District.—In common with a majority of the towns and districts of England, Sheffield had an exceptionally low death-rate last year—namely, one of 20·6 per 1000; and it is pointed out that, had the rate for the previous ten years remained in operation, no less than 887 more lives would have been sacrificed. But Dr. Sinclair White very properly warns his authority against claiming that the reduction is entirely due to sanitary reforms effected in the condition of the borough. The population in 1885 is estimated at 305,870, the birth-rate being 35·1 per 1000, and the deaths under one year of age amounting to 163·8 per 1000 registered births. One of the most interesting parts of the report relates to the mortality amongst those occupied in the various local trades, the idea of placing this on permanent record being evidently taken from Dr. Ogle's report to the Registrar-General. As yet, of course, the record is limited to one year, but when the tables have been prepared for a series of years they will certainly furnish valuable data on this subject. The summary amount of action taken to stay the spread of infectious diseases shows that there has been considerable activity in this matter, and Sheffield may be congratulated on having at least a very valuable instalment of permanent hospital provision, and in carrying out with energy the work of disinfection. The canal boats, slaughter-houses, common lodging-houses, offensive trades, dairies, &c., are kept under supervision, and an account is given of the work undertaken in the departments dealing with the adulteration of food and drugs, and with smoke abatement. Adverting to a special report on lead-poisoning by water, which we noticed last week, and to the fact that the danger of such poisoning was done away with by allowing the water to pass over broken lime-stone, Dr. White refers to the desirability of maintaining some such action as will diminish the scarcity of lime-salts in the water, such scarcity favouring the rickety deformities which are numerous in the town.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5775 births and 3942 deaths were registered during the week ending Sept. 18th. The annual death-rate in these towns, which had steadily increased in the preceding five weeks from 18·9 to 22·6, was again 22·6 last week. During the first eleven weeks of the current quarter the death-rate in these towns averaged 20·3 per 1000, and was 1·1 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 14·9 in Bristol, 15·3 in Derby, 17·1 in Huddersfield, and 17·6 in London. The rates in the other towns ranged upwards to 33·8 in Salford, 36·0 in Portsmouth, 39·6 in Preston, and 40·8 in Norwich. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had increased in the previous five weeks from 717 to 1199, were last week 1132; they included 925 from diarrhœa (exclusive of 26 attributed to simple cholera), 58 from "fever" (principally enteric), 49 from whooping-cough, 43 from scarlet fever, 32 from measles, 25 from diphtheria, and not one from small-pox. The lowest death-rates from these zymotic diseases were recorded last week in Bristol, London, and Derby; and the highest in Hull, Portsmouth, and Norwich. Diarrhœa caused the highest death-rates in Bolton, Portsmouth, Sunderland, Hull, and Norwich; "fever" in Cardiff and Portsmouth; scarlet fever in Birkenhead, Salford, and Blackburn; whooping-cough in Oldham; and measles in Nottingham. The 25 deaths from diphtheria included 13 in London, 3 in Birmingham, 3 in Liverpool, and 2 in Manchester. Small-pox caused no death in London and its outer ring, or in the twenty-seven large provincial towns. Only one small-pox patient was under treatment in the metropolitan asylum hospitals situated in and around London on Saturday last. The deaths referred to diseases of the respiratory organs in London, which had been 160, 128, and 110 in the preceding three weeks, rose last week to 168, but were 14 below the corrected average. The causes of 63, or 1·6 per cent., of the deaths in the twenty-eight towns last week were not certified either

by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leeds, Portsmouth, Brighton, Preston, and in four smaller towns. The largest proportions of uncertified deaths were registered in Oldham and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·7, 19·4, and 20·6 per 1000 in the preceding three weeks, declined again to 18·8 during the week ending September 18th; this rate was 3·8 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 11·8 and 13·9 in Greenock and Edinburgh, to 20·8 in Paisley and 24·1 in Glasgow. The 465 deaths in the eight towns last week showed a decrease of 43 from the number in the previous week, and included 45 which were referred to diarrhœa, 11 to whooping-cough, 7 to scarlet fever, 6 to "fever" (typhus, enteric, or simple), 3 to diphtheria, 1 to measles, and not one to small-pox; in all, 73 deaths resulted from these principal zymotic diseases, against numbers increasing from 63 to 93 in the preceding five weeks. These 93 deaths were equal to an annual rate of 3·0 per 1000, which was 3·5 below the mean rate from the same diseases in the twenty-eight English towns. The deaths referred to diarrhœa, which had risen in the previous four weeks from 23 to 57, declined again last week to 45, of which 19 occurred in Glasgow, 8 in Dundee, and 5 in Paisley. The annual death-rate from diarrhœa in the eight Scotch towns last week did not average more than 1·8 per 1000, whereas the mean rate from the same cause in the twenty-eight English towns was 5·3. The fatal cases of whooping-cough, which had been 19, 10, and 20 in the preceding three weeks, declined again last week to 11, and included 6 in Glasgow and 2 in Edinburgh. The 7 deaths from scarlet fever corresponded with the number in the previous week, 6 being returned in Glasgow. The deaths referred to "fever," which had been 7 and 4 in the previous two weeks, were 6 last week, of which 3 occurred in Paisley and 2 in Glasgow. Two of the three fatal cases of diphtheria, and the fatal case of measles, were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 56 and 72 in the previous two weeks, declined again last week to 65, and exceeded by but one the number in the corresponding week of last year. The causes of 60, or 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 18·2, 26·2, and 25·9 per 1000 in the preceding three weeks, further rose to 27·5 in the week ending Sept. 18th. During the first eleven weeks of the current quarter the death-rate in the city averaged 21·7; the mean rate during the same period was 19·1 in London and 17·8 in Edinburgh. The 186 deaths in Dublin last week showed an increase of 11 upon the number in the previous week, and included 29 which were referred to diarrhœa, 5 to "fever" (typhus, enteric, or simple), 2 to scarlet fever, 2 to diphtheria, 1 to whooping-cough, and not one either to small-pox or measles. Thus 39 deaths resulted from the principal zymotic diseases, against 18, 22, and 38 in the preceding three weeks; they were equal to an annual rate of 5·8 per 1000, the rates from the same diseases last week being 3·1 in London and 1·4 in Edinburgh. The fatal cases of diarrhœa, which had been 9, 14, and 26 in the previous three weeks, further rose last week to 29, and exceeded the number in any previous week of this year. The 2 deaths from scarlet fever showed a decline of 5 from the number in the previous week, while the 5 from "fever" exceeded the number in the previous week by 1. Three inquest cases and 4 deaths from violence were registered; and 39, or more than one-fifth of the deaths, were recorded in public institutions. The deaths of infants showed a further considerable increase upon recent weekly numbers, while those of elderly persons had further declined. The causes of 33, or nearly 18 per cent., of the deaths registered during the week were not certified.

A HOMŒOPATH SUED BY A PHARMACIST.—A pharmacist has successfully sued a homœopathic doctor in Játiva, for illegally trenching upon his province by preparing and supplying medicines in the form of globules to his patients.

THE SERVICES.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned officers of the Staff Corps and Indian Military Forces:—Brigade Surgeon James Browne, M.D., of the Bengal Medical Establishment, and Surgeon-Major Charles Robert George Parker, of the Madras Medical Establishment. The undermentioned officers have been granted a step of honorary rank on retirement:—Surgeon-Major Charles Robert Parker, of the Madras Medical Establishment, and Surgeon-Major Theophilus Bolton Wright Plunkett Johnston, of the Bombay Medical Establishment, to be Brigade Surgeons.

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Wm. H. Colahan, to the *Canada;* Staff Surgeon Joseph Wood, to the *Assistance;* Staff Surgeon Anthony Gorham, to the *Shannon;* and Surgeon Patrick B. Handyside, to the *Canada.*

YEOMANRY CAVALRY.—Westmoreland and Cumberland: Surgeon and Honorary Surgeon-Major Joseph Wickham, M.D., the resignation of whose commission has already been announced, is permitted to retain his rank, and to wear the uniform of the regiment on his retirement.

Correspondence.

"Audi alteram partem."

DIRECT REPRESENTATION OF THE PROFESSION ON THE GENERAL MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—The great majority of our profession will agree with the opinion, given in the annotation in THE LANCET of Sept. 18th, that 343 responses cannot represent 17,000 practitioners, and that the meeting at Birmingham was a failure; and will also agree with the hope, expressed in that article, that the promoters will not seriously prosecute their well-intentioned labours.

Let me call attention to what took place at Birmingham. A meeting was called of a committee (self-constituted, and not in the least representative). Of the 343 members of that committee only thirty-two attended, and towards the end of the meeting only a few remained. It was then agreed to send the names of a number of the candidates to the whole committee, for each one to select three names, the three having the largest number of recommendations to be adopted by the committee. Now, Sir, in what way is that plan to recommend itself to the whole profession, each member of which is just as capable of forming a correct judgment on the merits of each candidate as is any one of the 343 who are not the elected representatives of the profession with power to select candidates? Looking at the matter from every point of view, is it not substituting a body of 343, self-constituted as a committee, for the whole 17,000 members of the profession? For my own part, I think the system of committees a wrong one. The profession now, for the first time, is given a direct representation on the Medical Council, and the Council will send out the names of all the candidates to the 17,000 electors, for them to return three of those candidates to represent them. The members of the medical profession for the first time form an electoral body, unequalled in education and intelligence by any other in the kingdom, and recourse to anything like the ordinary electioneering tactics will be simply an insult to the understanding of those composing that electorate. I ask is it seriously thought to be necessary for any committee to inform the 17,000 electors of the merits of the majority, if not the whole, of the candidates? Are they not thoroughly competent to decide each one for himself? The representation is intended to be direct. I ask, will it be direct if any committee, however influential or well-intentioned, should interfere between the candidates and the electorate?

I am, Sir, yours obediently,

Brighton, Sept. 18th, 1886. R. P. B. TAAFFE.

To the Editor of THE LANCET.

SIR,—After reading in THE LANCET an account of the meeting at Birmingham attended by only thirty-two members of the profession, I feel convinced that any choice of

candidates made by that meeting, or emanating from it, will be disregarded by the large body of electors upon whom will devolve the great and important duty of sending representatives to the General Medical Council. The Birmingham meeting was evidently a distinct failure; let us hope, however, that it will have the effect of impressing the minds of the electors with the solemn responsibility devolving upon each of them individually to select the best men out of those who offer themselves as candidates. I should think there can be no difference of opinion as to the importance of voting for general practitioners exclusively as our representatives at the forthcoming election. We do not want consulting practitioners—they already form a majority in the Council. We have before us the names of three good candidates (general practitioners): Dr. Morris of Spalding, Dr. Glover of London, and Dr. Dolan of Halifax. Can we do better than return them as our representatives?

I am, Sir, yours faithfully,

Dover, Sept. 20th, 1886. JOHN MARSHALL, L.R.C.P. Lond.

THE HOSPITAL FOR WOMEN, LIVERPOOL.

To the Editor of THE LANCET.

SIR,—I have diligently compared the various reports, and I find all agree with *The Times* (August 9th) that counsel's query to Dr. Grimsdale was, "What is the mortality of these operations at the hospital?" There was no reference to the year 1885, and no reason for such limitation. The operation was performed on the plaintiff, Mrs. Casey, in 1884, and she was the sixth case of pelvic hæmatocele I had treated by abdominal section. Dr. Grimsdale has not replied to my question why he excludes these six cases and a successful case of removal of uterine appendages for hæmatosalpinx in 1884 from his calculations. I have published five of them in detail. He saw the second on my list in consultation, and was present at the operation. The Annual Report for 1884 is in his possession. His reply is that I mystify, but I will not retort.

I regret to be obliged to correct the report of cases of pelvic hæmatocele and of hæmatosalpinx treated by abdominal section in 1885, which Dr. Grimsdale has forwarded to you. He has omitted the two cases given in the above table.

No. on register.	Date of operation.	Age.	Disease.	Operation.	Recovered.	Died.	Abdominal section.
166	July 9th	39	Myoma: left hæmatosalpinx, right hydrocystic ovary	Removal of uterine appendages	R	—	A.S.
179	July 20th	30	Pelvic hæmatocele; peritonitis	Drainage	R	—	A.S.

I have already said that cases of hæmatosalpinx ought not to be classed with cases of intraperitoneal hæmorrhages, for they are entirely different; but if he quotes two he ought to quote all. In the second case I removed several pints of putrid blood from the peritoneal cavity of a woman who was carried into hospital apparently in a dying condition and with a temperature of 104°. Because there was no need to remove her ovaries and tubes, Dr. Grimsdale refuses to include it among my cases. But his objection is against abdominal section, and he has informed our hospital committee that these cases are invariably cured by rest. As regards the single death registered in 1885, I can only repeat that it was from morbus cordis, and in no way due to the operation, from which she had completely recovered; and in confirmation of this statement I refer with confidence to Dr. A. Samuels, physician to the Hospital for Consumption, who attended her during my absence at Cardiff and signed the certificate of death.

Dr. Burton has had only one case of pelvic hæmatocele under his care, and I notice that he treated it by a method which is universally condemned by recent authorities. He says he cannot diagnose them. I reply that among all classes of pelvic disease there is none that can be more surely diagnosed, but the indications can only be learned by experience.

Dr. Grimsdale says in his letter of August 28th that, so far as he knows, there were only four "real" consultations in 1885. I have, however, shown our committee that many more were held. But it is a fact that Dr. Grimsdale was called in consultation four times by a colleague. It is also a fact that in every case he approved of abdominal section, and that all four died in consequence of their operations—three within twenty-four hours, and one after eight days. Dr. Grimsdale, therefore, must rank among "the disciples of modern abdominal surgery," with a death-rate in 1885 of 100 per cent.

Dr. Grimsdale treats the inquiry committee as if it were the pliant eject of his own consciousness, bound to agree with his views. But I think it will not ignore the series of cases I have sent in, nor the large number of specimens of diseased ovaries and tubes which I have forwarded. It is by pathology, and not by committee, that the question will have to be solved. I have already shown between thirty and forty specimens at the Medical Institution. Numerous others I have exhibited at branch meetings in Chester, Southport, Ashton-under-Lyne, and North Wales. I think I have demonstrated the pathology of all the uterine appendages I have removed for inflammatory disease, except perhaps a dozen, before some public meeting of the medical profession. Dr. Grimsdale says that the operation of removal of the uterine appendages is a valuable addition to surgery, but liable to abuse. He considers, in fact, that my selection of suitable cases is imperfect. I am willing to learn. He has several times recommended it in consultation, and the excision has been performed in our hospital. I am willing to assume that his cases have been suitable, and only ask that he will forward his specimens to the inquiry committee as a standard for comparison. If he refuse to do this, I will not pretend to believe that his objections to my practice are wholly scientific.—I am, Sir, yours faithfully,

Liverpool, Sept. 21st, 1886. FRANCIS IMLACH.

To the Editor of THE LANCET.

SIR,—Dr. Burton is neither entitled to speak for me, nor to say that I am unable to answer for myself. Though I have not yet, since my illness, returned to active practice, I am quite capable of following the discussion in your columns, and I desire, from my personal experience, to express my approval of Dr. Imlach's method of treatment of pelvic hæmatocele. I am, Sir, yours faithfully,

R. J. LUPTON,
Acting Medical Officer, Hospital for Women.

Liverpool, Sept. 20th, 1886.

"SPAYING," OR REMOVAL OF THE UTERINE APPENDAGES?

To the Editor of THE LANCET.

SIR,—Mr. Lawson Tait's letter in your issue of Sept. 18th is chiefly occupied with his reply to your leader of Sept. 4th on the use of the term "spaying." His last paragraph he devotes to me, and in that portion of it in which he specially refers to my letter he gravely declares his opinion that it is just because the people understand this term "spaying" so well, and know what are its intentions and results on animals, that therefore no argument can be stronger against its use as a name for the corresponding operation in women—a *non sequitur* which is to me simply amazing. This popular knowledge of the word is, I consider, the convincing argument in its favour. I would ask, why should Mr. Tait write, as regards me, as he does in his letter of Sept. 18th, where he says, "I am not at all surprised at the row in Liverpool, and the unusual results brought about by it, now that we have an admission from Dr. Grimsdale of what he has been doing and saying." What the expression of my preference for the term "spaying" over Mr. Tait's phrase, with its unsound physiology, has to do with the row in Liverpool passes my comprehension. My arguments in favour of that term, it is true, may be, and probably are, weak as water in the esti-

mation of Mr. Tait, but at least they satisfy me and many leaders in the profession. And why should Mr. Tait think a row in Liverpool a necessary consequence of this? Mr. Tait continues: "When I heard him say in the witness-box that 'ovariotomy did not necessarily include removal of the ovary,' I suspected he was living in an atmosphere of confusion; now I know he has created it." Mr. Tait will probably begin to suspect that it was he who at that particular time was living in an atmosphere of confusion, and clearly of his own creation, when I tell him I did not, either in the witness-box or elsewhere, say that "ovariotomy did not necessarily include removal of the ovary." I was not asked by counsel on either side any question relating to ovariotomy. Mr. Tait further says: "In his evidence, Dr. Grimsdale clearly threw blame on Dr. Imlach for performing operations without consultations." This I deny. I answered the questions of counsel as to consultations truthfully, as I presume Mr. Tait will admit I was bound to do; but while in the witness-box I threw no blame on Dr. Imlach. Mr. Tait goes on to say: "If Dr. Imlach did this (i.e., perform operations without consultations), then Dr. Grimsdale was clearly to blame for it. As consulting officer to the hospital, he could have insisted on consultations being held, and if they had been refused, his remedy lay in an appeal to the committee of the hospital by a complaint that an important law was broken and defied." Mr. Tait will be glad to learn that I anticipated his valuable suggestions, and that the admirable course of action laid down by him is precisely that which I adopted so long ago as the beginning of February in this year. The only difficulty is that up to this time the committee have not made up their minds how to act to enforce the law so broken and defied. Finally, Mr. Tait says: "Instead of this, he appealed to outside authority in such fashion as led to most discreditable proceedings." This is exactly what I did not do.

Truly, Mr. Tait's knowledge of Liverpool medical affairs is at present not altogether accurate. He had better change his correspondent.—I am, Sir, yours obediently,

Liverpool, Sept. 18th, 1886. THOMAS F. GRIMSDALE.

*** The correspondence on the above subject must now cease.—ED. L.

SUBPERITONEAL HÆMATOCELE.

To the Editor of THE LANCET.

SIR,—In common evidently with many other members of the profession, I was very much surprised at the statement of Mr. Lawson Tait, in giving evidence in a recent case, that "95 per cent. of cases of subperitoneal hæmatocele are fatal without operation," the operation indicated being removal of the "uterine apendages." My attention was attracted to the statement by the following circumstances:—A few weeks ago I requested Dr. Stirton, of this city, to see a case with which I was unwilling for certain reasons to be professionally associated. A tumour in the right iliac region was diagnosed, and there was some uncertainty as to its nature. With the view of elucidating matters, Dr. Stirton inserted a fine trocar and cannula of Dieulafoy's aspirator. A small quantity of blood oozed through the trocar, but it had all the characters of effused blood, and a subperitoneal hæmatocele was at once pronounced to exist. Aspiration was immediately proceeded with, and about twenty ounces of dark fetid blood were removed without difficulty. Rest being enforced, the patient passed about ten days in bed without a bad symptom. After that time she got up, and very soon resumed her household duties, to which she has been attending since without the slightest symptom of ill-health. Is it in such cases as this that Mr. Lawson Tait, and those who think with him, would proceed to the performance of so grave an operation as that of removal of the "uterine appendages"?

On referring to an admirable book which I have beside me ("Traité pratique des Maladies de l'Uterus et de ses Annexes,") by Nonat, I find the following opinions on this subject. "Peri-uterine hæmatocele terminates rarely in death." In referring to the terminations of hæmatocele, this authority points out how at the menstrual period the symptoms are aggravated; and a second cause of recrudescence is noted as arising from the process of absorption, which Dupuytren has compared to that of digestion. Left to itself, three methods of termination are noted: first, by absorption of the effused blood; second, by evacuation by either the rectum or the vagina; and thirdly, by effusion into the peritoneal cavity if the hæmatocele be subperitoneal. Fatal results rarely take place when by the second method the tumour is incompletely evacuated, and inflammatory phenomena and septicæmia ensue. The termination by effusion into the peritoneal cavity, while grave, is also maintained to be very rare. Hæmatocele may cause death, but according to Nonat that result is rare. In fifteen cases of undoubted hæmatocele which came under his observation but one resulted in death, and this was associated with tubal pregnancy. In suitable cases, Nonat is in favour of the treatment of hæmatocele by puncture. Now, if simple puncture (aspiration) of a hæmatocele gives such favourable results, surely the exigencies demanding the formidable operation of removal of the uterine appendages must be rare indeed. I am one of those who believe that a highly culpable amount of surgical interference with the uterus and its appendages obtains in these days, that many lives are sacrificed in this manner at the shrine of "brilliant surgery," and that the recent reprobation of such interference is justly merited. Of course all this is quite apart from sympathy for Dr. Imlach, as it must not be forgotten that it is a very simple matter for the most careful, the most skilful, and the most conscientious to become entangled in the meshes of the law.

I am, Sir, faithfully yours,

Glasgow, Sept. 4th, 1886. D. CAMPBELL BLACK.

NATURE AND TREATMENT OF FLAT-FOOT.

To the Editor of THE LANCET.

SIR,—Mr. Mayo Collier contends that because a movement forwards of the astragalus on the os calcis is impossible when the sole is resting on a horizontal surface, therefore the flattening of the foot is primarily due to an alteration in the position of the latter bone caused by raising the heel above the level of the sole, as is done by the conventional boot. While fully agreeing that the deformity is not due to laxity of the ligaments, I would point out some objections to his view of the cause and to the treatment, based on that view, which he proposes.

The astragalus does not in flat-foot move forwards so much as downwards and inwards. Prof. Humphry has described in THE LANCET of March 20th, 1886, a dissected specimen then before him. Moreover, take an ordinary case of incipient valgus, of weak ankles, as it is called—always to be easily found where children are,—and let the subject stand barefooted on a level surface, with the full weight of the body on one foot: then raise the anterior part by placing the hand beneath, or by any imitation of the sole which Mr. Collier describes; it will be seen that the deformity is not diminished. Now let the child spring on tiptoe; it will be seen that the arch is distinctly improved. Why? Because the heel is raised, and the body supported in that position, not only, as commonly stated, by the muscles acting on the heel, but also by the tibialis posticus, the long flexors, and the peronei. The tendons of these muscles can be felt as they start out behind either malleolus, and they are, in relation to the arch, as bow-strings to a bow: the ligaments are thus relieved of the heavy strain which the weight of the body would otherwise throw on them. It is by this agency that the arch of the foot is maintained in good walking.[1] By this agency, indeed, the arch, which hardly exists in infancy, is formed, and by it, and by it alone, can the structure in a satisfactory and permanent manner be restored.

I say, then, that as much vigorous but well-directed exercise as can be properly borne, and not "as much rest as possible," is the right treatment. The patient should when sitting, or better when lying, be directed to forcibly invert the foot, and flex the toes as much and as often as can be done; the surgeon or nurse should occasionally see how much resistance can be overcome in doing this. He (or, as is more likely, she) should learn as soon as possible to spring up on tiptoe, sustaining the position awhile and then gradually sinking on the heel, and should learn, if he must stand, to stand on the toes. To raise a weight by means of a cord running over pulleys is, for the purpose in view, of all exercises the best; the object is that the weight

[1] I discussed at length the Physiology of the Feet in an article in THE LANCET of June 26th, 1884.

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shall partly support the body as the latter rises to extreme tiptoe; then the toes *must* grip the ground for the downward pull. The inspiration, I may add, should go with the upward, the expiration with the downward, movement. The act of turning a wheel fixed so high that the handle can only be reached with difficulty when at the highest point of the circle is a similar exercise, and may be used with the same object. The patient should learn, as soon as may be, to walk with a springy gait, and then do it freely, avoiding fatigue. The toes should come to the ground the moment before the heel reaches it—this can only be done properly in boots without heels; the heel should then be vigorously raised with the onward movement, the toes firmly gripping the ground. Thus the very act of walking is made a means of cure. This, in my judgment, is the way to treat flat-foot, but to raise the anterior part by "a sole quite an inch thick, fining off to a line or two at the heel" would be to place the foot in a most unnatural position, and, by preventing the necessary bending at the metatarso-phalangeal joints, would be fatal alike to good walking and to the restoration of a lost plantar arch.

High heels to boots, bad as they are, and that for many reasons, do not necessarily tend to cause flat-foot, and only do so when the bowstring action of the flexors is arrested by the fixed position of the toes, as in pointed boots, or when the weight of the body is rested on the high heel. A French woman's idea of a high heel is not to use it. The observant Max O'Rell says that an English lady in walking bears on the heel, a French lady on the point of the toes;[1] and I have seen it gravely stated that French ladies practise walking with an indiarubber ball fitted with a squeak, and fixed, one under each heel, the object being to avoid making the sound which pressure on the ball would cause. They who habitually stand and walk on tiptoe will never be flat-footed. This, as Sir James Paget has told me in support of my views, was the dictum of a dancing master at Windsor he had known many years ago. I am sure that it is true.

As a protest against an operation described by Professor Ogston, I published in THE LANCET of Feb. 9th, 1884, an account of two extremely bad cases cured by muscular action which had then stood the test of ten years of active life, the condition being now still maintained. Of one, the result of direct violence, I am myself the subject; the other, an ordinary but very severe case caused by prolonged standing and supporting a heavy weight, could, and still may, be identified in London.

I do not say that Mr. Collier's own "novel departure in the treatment of flat-foot" is one of those inventions of which the fascination of novelty and not necessity is the mother (to still use his own words), but I do claim that a very stern necessity prompted my investigations. I had, after an accident in 1867, been for six years a cripple condemned to go about in constant discomfort, often in severe pain, compelled, excepting at short intervals, to wear a cumbrous apparatus, and found myself little, if any, better off at the end of the sixth than at the end of the first year, in spite of the best surgical advice and the best mechanical assistance. In despair at having again to go through the misery of bringing into something like comfort a renewed mechanical "boot," I boldly threw aside all apparatus, put in practice the principles which, as I had decided, ought to be sound, and in six months brought my foot into a condition never again to give serious trouble, soon becoming, and always remaining, practically as good as ever. This being so, I may, I think, be excused for once again insisting that the principles I have indicated are true, and the practice thereon founded important.

I am, Sir, yours faithfully,

Gloucester, September, 1886. T. S. ELLIS.

[1] "L'Anglaise marche les bras pendants, en appuyant sur les talons; la Française marche les bras pliés, en appuyant sur la pointe des pieds: c'est plus gracieux, mais moins commode."—*Les Filles de John Bull.*

THE EZRA HOSPITAL.—Sir Rivers Thompson last month laid the foundation-stone of a new hospital in Calcutta, to be called the Ezra Hospital, on a site near the present Medical College. The new institution is the gift of the widow of the late Mr. Ezra to the Jewish community, and is amply endowed with invested capital. It is specially intended for the reception of Jewish patients, and will, when completed, be under the control of the Principal of the Medical College.

THE REPORT OF THE PRESIDENT OF QUEEN'S COLLEGE, BELFAST.

(From our own Correspondent.)

THE annual report of the President of Queen's College, Belfast, for the session 1885-86 has just been printed. From it we learn that 131 students entered the College during the session, while the total number of students enrolled in each faculty was as follows: Arts, 205; Law, 12; Medicine, 244; School of Engineering, 16. Making allowance for 17 who attended in more than one department, the aggregate total of individual students was 460. It will be seen that the number of students in the Medical Faculty outnumbers the whole of those attending the other departments. Eight lady students attended classes in the Arts division, and the President expresses the hope that such changes may be made in the statutes as will open to students of either sex all scholarships, exhibitions, &c., in the Faculty of Arts, as is the law in the Royal University. The President urges very strongly the need of enlarged buildings and laboratories. The professors of chemistry, physics, natural history, anatomy, and physiology still complain of want of sufficient accommodation. Last year a small addition was made to the chemical laboratory; but even now there is not room for one-half the students in attendance; as a consequence the class has to be divided, and the professor has to repeat his lectures and demonstrations not unfrequently two or three times in the day. The progress of students is also seriously interfered with, for the laboratory should be open to them for practical work at all hours. In the departments of practical physiology and histology the laboratories, as the President reports, are much too small, and he hopes that an urgent application made to the Board of Works by Professor Redfern for some alterations which would secure additional space may be successful, and that before the commencement of next session the alterations he asks for may be made. Dr. Cunningham (the Professor of Natural History) has found it necessary to open a class in practical biology, but there is no room in the present building for a laboratory. Two rooms connected with the materia medica class-room were used, but they were unsuitable and much too small. A temporary arrangement has now been made by which the anatomical dissecting-room can be utilised for the purpose, as the class in practical biology does not open till after the close of the regular medical session. The total amount required for all these improvements is small, the estimate of the architect of the Board of Works, who prepared plans, being under £8000. It is to be hoped that the Government will see their way to grant this small sum. The great bulk of the students have entered the Royal University of Ireland, but it seems a hardship that it is necessary for from 300 to 400 young men to travel year after year to Dublin, thus entailing large additional expense, owing to the fact that the higher and all the honour examinations take place in Dublin; but, notwithstanding the difficulties with which they have to contend, the success of Queen's College students of Belfast at University examinations during the past year has been unprecedented. The President refers to the fact that at the opening of the summer session a Volunteer ambulance corps was organised by the medical students, and the College Council cordially approved of the movement and voted £50 towards the purchase of ambulance tents and stretchers. About 120 were enrolled, and they have for more than two months been regularly trained by a military instructor. Further, through the kindness of the military authorities, the corps accompanied the troops and practised ambulance work on field days.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE JUBILEE EXHIBITION.

IT may not be known to some of your readers that we are about to have an exhibition of mining engineering and of the various industries in Newcastle. It will be on a very extensive scale, and it is proposed to have the opening on May 24th, 1887—it is to be hoped, under Royal auspices. Some idea of its extent may be gained from the statement

that already 30,000 superficial feet of floor-space have been applied for. The contract for the building has also been let to an eminent contractor, and it is to be proceeded with at once. Under the head of "sanitary appliances," our active city medical officer of health, Mr. H. E. Armstrong, reported that the committee for this department had been divided into nine subsections to carry out the different plans; and that, so far as they had gone, they had done their work well. Models of hospitals will be a feature of this section, and the Tyne Port Sanitary Authority and the Newcastle Corporation had given Mr. Armstrong authority to provide models of the hospitals recently built by them; and it was fully expected that models of other hospitals in various parts of the country would be sent in, so that altogether the sanitary exhibits promise to be a leading feature.

AN ALTAR TO ÆSCULAPIUS AT SOUTH SHIELDS.

Mr. Gowans of South Shields, in his late address to the Northern Branch of the British Medical Association, refers to the interesting discovery of a Roman altar at South Shields, which is now to be seen in the public Library Museum there. It is believed to be older than any of the inscribed stones which have yet been discovered in South Shields, and bears the following inscription:—"D. ESCVLAP. P. VIBOLEIVS. SECVNDVS. ARAM. D.D.," which may be translated—"To the God Æsculapius, Publius Viboleius Secundus gave [this] altar as a gift." Mr. Gowans, in his address, very effectively turns this discovery to good account for South Shields—which is proverbially healthy, and owing to the public spirit of its inhabitants is growing in deserved repute as a health-resort—by remarking as to health visitors, "Already large numbers arrive, induced by the excellence and safety of the beach for bathing and the cheapness of living, &c. So history repeats itself, for as two thousand years ago pilgrims repaired hither to seek health at a shrine dedicated to Æsculapius, in a like manner they are arriving at the present day seeking similar benefits."

DEATH OF MR. T. J. TURNBULL, SURGEON, J.P., NORTH SHIELDS.

I regret to announce the death, on the 16th inst., of Mr. T. J. Turnbull, M.R.C.S., who was well known as an active practitioner in North Shields. Mr. Turnbull was a pupil of the late Sir John Fife, and was in his fifty-sixth year. Mr. Turnbull had a severe illness about two years ago, from which it was hoped he had fully recovered, but he never fully regained his former condition. In politics Mr. Turnbull was a Liberal, but he took little part in public affairs except as a member of the School Board. Mr. Turnbull's father was the proprietor, and I believe the originator, of the well-known "Turnbull's Shipping Register." His funeral took place on Saturday last, and his remains were followed to the grave by a large number of professional friends and mourning patients. He has left a widow and one child.

TESTIMONIAL TO MR. GAMMAGE OF SUNDERLAND.

Mr. Gammage, a highly esteemed general practitioner at Sunderland, having been compelled to relinquish practice in consequence of ill-health and increasing infirmity, it has been decided to present him with a testimonial of esteem. Influential committees of practitioners have been formed to further the object in Sunderland and Newcastle, and I hope to be able at a future time to record their success.

Newcastle-on-Tyne, Sept. 20th.

EDINBURGH.

(From our own Correspondent.)

DIRECT REPRESENTATION ON THE MEDICAL COUNCIL.

THE near approach of the election of a Direct Representative of the Profession in Scotland to the General Medical Council has awakened a good deal of interest in different localities throughout the country, and a number of candidates for the post are now in the field. This interest, chiefly manifested as it is in the foci of thickest population and of most obvious medical activity, illustrates two of the special characteristics of this country, true also to a great extent of England, and in both countries interfering seriously with an easy solution of the important question who the direct representative shall be. The first point is the entirely unorganised condition of the medical profession, making it well-nigh impossible for it to realise and to profit by its enfranchisement; the second is an outcome of the restricted intercommunication between different parts of the country that till lately obtained, and that has given rise to a system of isolated interests which cannot but make its influence felt here, as in so many other relations where the idea of clanship is still a most potent factor. Thus one finds, on looking at the list of Scottish candidates, the north, the east, and the west each represented by an able champion, any one of whom might well represent the medical interests of the whole country. Dr. Bruce of Dingwall, an Aberdeen graduate, and widely known and respected throughout the north, will doubtless secure numerous suffrages in the region of which Aberdeen is the medical metropolis. Coming south to Dundee, one finds Dr. Robert Sinclair in the field, the energetic secretary of the Forfarshire Medical Association, and, in the mind of that part of the profession which occupies the eastern provinces, pre-eminently the best man for the post. Passing westward to Glasgow, one comes to another still more numerous constituency, no less isolated in its views than the two preceding, and here enthusiastic efforts are in progress for the election of Dr. James Morton, well known for his contributions to operative and conservative surgery. If my view be correct, votes will be cast largely in reference to latitude and longitude. As yet no additional candidate has publicly entered into the contest, so that Edinburgh interests have not yet been specifically touched upon. It has, however, been mooted that Sir Douglas Maclagan might appear as a candidate who would prove acceptable to a very wide constituency, but as yet no such step has been taken. Nor is it likely that it will be, since a contested election can scarcely prove an attraction to one so long engaged in arduous effort, and so laden already with the weight of universal admiration and well-merited honours. But apart from this, the particular interests which Sir Douglas Maclagan could not but represent, were he chosen for the post, are provided with special means of representation under the clauses of the new Medical Act.

Edinburgh, Sept. 21st.

IRELAND.

(From our own Correspondent.)

DIRECT REPRESENTATION IN IRELAND.

THERE is little to chronicle in respect to the contest which will take place next November for a member to represent the medical practitioners of Ireland in the General Medical Council. There are some five candidates named as likely to come forward. It has been pointed out that it would be advisable that Dr. Jacob should intimate his intention of resigning the secretaryship of the Council of the Royal College of Surgeons if he be successful, but this he has refused to do, although it is very improbable that the Council would permit him to hold the two offices simultaneously. So far no committee, to my knowledge, has been appointed, as in the sister countries, to promote the election of the various candidates, nor is it at all probable that one will be constituted.

THE EPIDEMIC OF FEVER AT HARE ISLAND.

A second death has occurred—that of a nursing sister, who contracted typhus fever while in the discharge of her duties, and was admitted to Skibbereen Fever Hospital, where she died. The water-supply of the island, as was expected, is not all that can be desired, and last week, at a meeting of the Skibbereen guardians, a communication was received from an analyst in Cork, stating that two samples of water from Hare Island were found to be polluted and thoroughly unfit for use.

THE LATE SURGEON G. O'GRADY, A.M.D.

Last week the remains of Surgeon Goodwin O'Grady, Army Medical Department, were interred with full military honours in the military cemetery, Cork. The deceased officer was thirty-two years of age, and was the son of the late rector of Magourney. The firing party was comprised of 100 men of the Argyleshire Highlanders, General Stevenson commanding the Cork district; the principal members of the head-quarters' staff and other officers stationed in the garrison forming a portion of the funeral *cortège*.

ATTACK ON DR. BUTLER, OF LIMERICK WORKHOUSE.

An attempt was made recently to stab Dr. Butler, one of the resident physicians attached to this workhouse, and last week his assailant was sentenced to two months' imprisonment.

An address has been presented to Dr. Jameson Dwyer, late resident physician of the Mullingar Asylum, on his promotion to the post of resident medical superintendent of the Cork District Lunatic Asylum.

Dublin, Sept. 21st.

MEDICAL NOTES IN PARLIAMENT.

Richmond Lunatic Asylum (Ireland).

IN the House of Commons on the 16th inst., in answer to Mr. Corbet, Sir M. Hicks-Beach stated that there are in the Richmond Lunatic Asylum 1094 patients, of whom 907 are Catholics. There are five medical officers, one of whom is a Catholic, but the only appointment for which the Government is directly responsible is that of the resident medical superintendent.

The Medical Staff of the Post Office.

On the 18th inst. Mr. Pickersgill, in a lengthy speech, called attention to the conduct of the medical staff of the Post Office, which he alleged to be oppressive so far as the *employés* were concerned, and injurious to the public interests. Mr. Isaacson supported Mr. Pickersgill, and said that a spirit of dissatisfaction existed with regard to the manner in which the department in question is conducted. Mr. Raikes replied, and completely exonerated the officials from the charges of neglect which had been brought against them.

The Troops in Egypt.

On the 20th inst. Mr. W. H. Smith, replying to Mr. Buxton, stated that there was at the present time no abnormal sickness among the troops at Assouan. The number of troops in Egypt had, however, recently been considerably reduced, and it was hoped that it would be possible to effect a still further reduction very shortly.

Water Companies and the Public.

On the 23rd inst., in reply to Mr. Pickersgill, Mr. Ritchie stated that the report for the past year of Mr. F. M. Corner, medical officer to the Poplar Board of Works, respecting the stoppage of the water-supply to houses for non-payment of the rate, calls attention to a condition of affairs that urgently demanded a remedy. The Government had no power over the water companies, but he earnestly hoped that they would take care that the powers which they possessed by law were not exercised in such a manner as would be detrimental to the community and extremely hard upon the tenant. In his opinion, it was absolutely necessary that the law relating to the cutting off of water should be amended.

Metropolitan Asylums Board.

In reply to Mr. Rowlands, Mr. Ritchie stated that the Local Government Board had recently increased the number of elected members of the Metropolitan Asylums Board by nine. The change had been made in consequence of the great alterations which had occurred in the population and ratable value of the unions and parishes in the metropolis since the number of members was fixed in 1871, and the large additional duties which the managers had now to undertake as compared with those which devolved on them at that time. The present number of elected managers was 54, and of nominated managers 15.

The Belfast Hospital.

In reply to Mr. Sexton, Sir M. Hicks-Beach said that a deputation had waited upon the Lord Chancellor to urge the claim of the Belfast Hospital to a grant in consequence of the great access of patients during the late riots, but they did not give him information upon the precise points which he required. He could not at present recommend a grant for the ordinary service of the hospital, and although the number of patients treated on this particular occasion was numerous, it formed a very small proportion of the number of patients treated during the year. He fancied there was some arrangement under which payment was already made in regard to members of the constabulary and soldiers treated, but he would undertake to look into the matter from that point of view, and if there should be sufficient ground he certainly should recommend a grant for the services rendered.

Obituary.

JOSEPH SAMPSON GAMGEE, F.R.S. ED.

WE regret to announce the death of this well-known surgeon, which took place at his residence in Birmingham on Saturday, the 18th inst. Five years ago Mr. Gamgee was laid by for some weeks with a serious attack of hæmaturia, which evidently left its mark upon his kidneys and his general health. He regained, however, a fair amount of strength, and was enabled to follow his ordinary avocations with apparently his usual vigour. Three weeks ago, while walking quickly along one of the streets at Dartmouth he slipped, and, falling, injured his hip. Though suffering acute pain, he was unwilling to admit that there was any grave damage, and under the careful superintendence of his two sons, he was brought home in a litter and placed in bed. Here for a fortnight he saw his patients and dictated his correspondence, at times even getting from his bed into an easy chair. At the end of this time, not being satisfied with his condition, he consented to have ether administered, and a more thorough examination made of his injury, the conclusion arrived at being that there was a fracture of the upper end of the right femur. Three days afterwards he became sick; the next day he vomited blood and had abdominal distension, and on the following day suppression of urine, death ensuing in the evening, with his intelligence unimpaired to almost the last moment.

Mr. Gamgee was born at Florence in 1828, and was consequently in his fifty-ninth year. The son of an eminent veterinary surgeon (still living in Edinburgh), at first he was destined for the same calling, but subsequently he became a student at University College and entered the medical profession, studying afterwards at Paris, Pavia, and Florence. During this course of education he gained that mastery of languages which in after-life adorned his career, and made him a facile exponent both of the writings and teachings of continental authors, especially French and Italian. This art also led to his appointment as corresponding member of several foreign learned societies, and gave him the opportunity of supplying abundant contributions to the literature of his profession from many sources. Exhibiting in his student days the promise of an exceptional and brilliant career, he became surgeon to the Queen's Hospital, Birmingham, in 1857, a post which he held until his illness in 1881, when he was appointed consulting surgeon.

Into the conduct of his duties at the Queen's Hospital he threw himself with intense zeal and activity, and in both the professional and administrative work laboured unceasingly to promote the reputation and welfare of the institution. The extension of the hospital and the origin of the Hospital Saturday collections were mainly owing to his influence and exertions, and in the details of these movements he gave valuable assistance and incessant labour. While president of the Medical Institute, by his unwearying devotion, he added largely to the library and the fund connected with it; and as president of the Birmingham Branch and Midland Medical Society he worked ardently in their respective interests. He lately pleaded eloquently for the members of the College of Surgeons in their efforts to obtain direct representation on the Council of the College, and always sought to impress the right of direct representation of the profession in various ways. As an author, his works on the Treatment of Fractures and on the Treatment of Wounds illustrate the clearness and precision of his writing. Various monographs—"Harvey and Cæsalpinus," "Vivisection and Human Surgery," "The Hospital Saturday Movement," &c.—testify to his literary power and ability. As a strenuous advocate of treating wounds by dry and infrequent dressing, rest and immobility, his teaching was expressed in a form which exhibits a wide knowledge of surgical literature and his complete mastery of fine and graceful writing. In addition to his being a prolific writer on surgical and professional subjects, Mr. Gamgee was an exceptionally eloquent and facile speaker. His presence at meetings and medical societies always commanded interest and received attention. Fluent and profuse in his command of language, dramatic in his manner of expression, he elaborated argument and poured forth criticism in a manner which carried his audience with him

and evoked admiration. Enthusiastic to a degree in all he undertook, he championed his cause with a fervour which was refreshing and invigorating, while his power of observation and comprehensiveness gave him a grasp of his subject which almost compelled conviction.

Mr. Gamgee, though actuated always by a high public spirit, and in friendly relations with every leading man of the town, never took any active part in public affairs outside his profession, but was content to give his advice and counsel freely in all matters having a professional bearing. His intimate acquaintance with the working of the medical charities rendered his opinion valuable and sought after.

As a man of varied talents and extensive literary knowledge, as an eminent writer on surgical and allied topics, as a loyal citizen and generous friend, his absence will be conspicuous and difficult to fill. Mr. Gamgee leaves a widow and four children to mourn their loss.

We publish the following from a correspondent:—

Late on Saturday night, 18th inst., died J. Sampson Gamgee, passing away calmly, peacefully, and painlessly, after a very short illness. Let others who are qualified to do so speak of his professional career and attainments; I, who knew him rather intimately, ask a small space in your paper to speak of him as I knew him, at home and as a friend. He was, in every sense of the word a model, and most devoted husband and father; but here the child was only the father of the man, as our departed friend was a most devoted son to his parents. Where he made friendships they were deep and sincere attachments, and his repeated kind actions, not only in great but in little matters, will ever be held in grateful memory by those who enjoyed the rare privilege of his intimate acquaintance. No trouble was too great for him when he wanted to do a kind action. His wonderful gifts of language, feminine delicacy of touch, and perfect tact were such as fall to the lot of few men to possess. He was a man of deep and true religious feeling, which was intensified during and since the serious illness under which he suffered some five years ago. Among his favourite pieces of sacred poetry may be especially mentioned Psalm xxiii., and "Lead, kindly light, amid the encircling gloom." His genuine religion found expression in such acts of kindness and self-denial as could have no other source. His premature decease, in the ripe autumn-time of his splendid talents and matured experience, leaves a void in his circle of relatives and friends which will be bitterly felt and never again filled. It is more than probable that his disease may have been hastened considerably by the immense amount of brain and body work which he crowded into his useful life. He was always an enthusiastic student of his profession, and could not do either his lay or professional work by halves, on account of his innate earnestness of purpose. In conclusion, a very correct summing-up of his nature may be found in the words of one of his favourite authors: "Take him for all in all, we ne'er shall look upon his like again."

Medical News.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on Thursday, the 16th inst.:—

Doyle, Henry Martin, Melbourne, Victoria, Australia.
Moxon, Alban Henry, King-street, Great Yarmouth.
Walker, Fredk. Wm., Aldborough, near Darlington, Yorkshire.
White, Cresswell Fitchett, Chippenham, Wiltshire.

The following gentlemen passed the Preliminary Examination in Arts on the 10th and 11th inst.:—

FIRST CLASS.—H. E. Cooper, C. B. Dale, A. C. Gask, W. F. H. Milton.
SECOND CLASS.—J. C. Bowden, B. H. Carpenter, L. V. Cooper, C. A. Coventon, T. S. Davies, F. Deas, J. M. Duncan, H. F. Ealand, E. Flint, B. B. Ghose, S. F. St. D. Green, W. E. Grove, A. A. Hewer, W. C. Hinde, P. S. Kesteven, H. Meyrick-Jones, J. J. Mooney, F. H. O'Donel, F. R. Oram, W. C. Orme, A. W. Perry, R. W. Prentice, R. H. Reynolds, H. Sisson, L. G. E. Snead, S. L. J. Steggall, S. W. Sweetnam, J. G. Turner, R. S. Whitford, P. E. Withers, W. E. Wyborn.
ELEMENTARY MECHANICS ALONE.—C. W. Allen, L. S. Baines, W. Birkett, F. L. Charters, A. T. Collett, C. W. Crasweller, F. J. A. Dalton, C. T. W. Hirsch, H. A. Julius, F. W. Kerbey, A. King, F. C. Lewis, H. W. Lyle, D. T. Maddock, N. Marder, M. C. O'Brien, F. O'Byrne, G. E. Page, H. L. Powys, G. F. C. Prance, H. Reeks, J. J. D. Richardson, F. C. Rundle, G. J. Rutherford, F. Scorer, J. H. B. Simons, M. K. Thomas, G. M. Y. Whittingham, C. H. Willis, J. J. Winn, B. Yonge.

A CONGRESS of Russian alienists will meet in October.

THE Winter Session of the Charterhouse Science and Art Schools will commence on Oct. 2nd.

A CONFERENCE of those interested in the care of idiots has just been held in Frankfort-on-the-Maine.

THE GERMAN MILITARY MEDICAL JOURNAL.—Staff Surgeon Dr. Lenhartz has been appointed editor of this Journal in place of Dr. Bruberger, recently deceased.

AT the Hammersmith Police-court, on the 21st inst., a Fulham butcher was fined £40 for exposing for sale joints of meat which were unfit for human food.

ON the 18th inst. a very successful demonstration was held in Plaistow on behalf of the proposed hospital for West Ham.

A HOSPITAL SUNDAY was inaugurated at Henley on the 11th inst., the proceeds of the collections being devoted to the Royal Berks Hospital.

THE GROCERS' COMPANY SCHOLARSHIPS.—Dr. G. Sims Woodhead, of Edinburgh, has been awarded one of the Research Scholarships offered by the Grocers' Company.

ALEXANDER KRAPOTKIN, a Russian biologist, physicist and astronomer, who was banished to Siberia in 1874, has recently shot himself in Tomsk.

THE students attending the Newcastle-on-Tyne Throat and Ear Hospital, the medical staff, and other friends have presented the Senior Surgeon, Richard Ellis, Esq., F.R.C.S. Edin., with a handsome silver claret-jug and salver, as a token of their esteem.

ENTERIC FEVER AT HINCKLY.—A serious outbreak of enteric fever is reported to have broken out at Hinckly, in Leicestershire, where a large number of people are suffering from the disease, and some have died. No fewer than sixty cases have been attended by one medical gentleman.

THE POLICE AND AMBULANCE WORK.—Arrangements have been made for the instruction of the Singapore Police Force by the local centre of the St. John Ambulance Association, the Government undertaking to defray two-thirds of the cost, and the centre the remaining third. Many Chinese are life or annual subscribers to this centre.

A WOMAN who recently applied for admission to the Richmond Workhouse, on being asked as usual to enter the bath, refused to do so, stating that she had not washed her body for nine years. On being informed that the rule could not be relaxed, the applicant decided to leave the house rather than submit.

SEASIDE CONVALESCENT HOME FOR WORKING-MEN.—At a meeting of the committee and friends of this institution on the 18th inst., it was stated that the Home has, since its establishment three years ago, afforded rest and shelter to over 1000 convalescents. For some months past it has been impossible to find room for the number of applicants, and the hope was expressed that at an early date it may be possible to considerably increase the accommodation afforded.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—At the half-yearly meeting of the Governors of the Wolverhampton and Staffordshire General Hospital, held in the Medical Institute, Cleveland-road, on Tuesday, September 14th, the chairman, after the conclusion of the formal business of the meeting, on behalf of the subscribers, presented to Dr. Millington his portrait, and to Mrs. Millington a silver salver and a silver tea and coffee service. Dr. Millington, who is now one of the consulting physicians, had been honorary physician for thirty-two years, and his portrait will be placed in the board-room of the hospital.

PROPOSED IMPERIAL INSTITUTE.—In a letter to the Lord Mayor, the Prince of Wales has suggested, as a commemoration of the jubilee of Her Majesty's reign, the establishment of an institute which will represent the Arts, Manufactures, and Commerce of the Queen's Colonial and Indian Empire. The Lord Mayor has expressed his approval of the scheme, and a fund is to be opened at the Mansion House in furtherance of the project. It is anticipated that arrangements may be made whereby the more important collections now being exhibited at the Indian and Colonial Exhibition will be placed at the disposal of the proposed institution.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ADAMSON, JAMES, M.D.Glas., L.R.C.S.Ed., has been appointed Medical Officer for the Hetton-le-Hole District of the Houghton-le-Spring Union.

ALLNUTT, JOHN, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Seventh District of the Blything Union.

BERRY, EDMUND, L.K.Q.C.P.I., L.F.P.S.Glas., has been appointed Medical Officer for the Leyland District of the Chorley Union.

COTTERELL, EDWARD, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Stoke Lynne District of the Bicester Union.

CROSSE, WILLIAM HENRY, M.R.C.S., L.F.P.S.G., L.S.A., has been appointed Surgeon to the National African Company.

DIXON, GEORGE F., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Tyldesley District of the Leigh Union.

DIXON, WALTER, M.B., C.M.Ed., has been appointed Medical Officer for the Second Division of the Houghton District of the Dover Union.

DUNDAS, MORDAUNT G., M.R.C.S., L.S.A., has been appointed Medical Officer for the Fransham District of the Mitford and Launditch Union.

FOWLER, CHARLES O., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Second District of the Croydon Union.

WARWICK, F. J., M.B.Camb., M.R.C.S., has been appointed Medical Officer for the Shepperton District of the Staines Union.

WARWICK, PERCY, L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse of the Blything Union.

Births, Marriages, and Deaths.

BIRTHS.

BARNES.—On the 19th ult., at St. George's, Bermuda, the wife of Surgeon H. J. Barnes, Army Medical Staff, of a son.

KIRKPATRICK.—On the 15th inst., at The Shrubbery, Canterbury, the wife of Hugh Cunningham Kirkpatrick, M.D., Surgeon Medical Staff, of a son.

LAWRIE.—On the 19th inst., at Greenhill, Weymouth, the wife of Macpherson Lawrie, M.D., of a daughter.

MARRIAGES.

CARTER—KELLY.—On the 15th inst., at the Parish Church, Rawdon, by the Rev. Reginald R. Kirby, Vicar of St. Matthew's, Chapel-Allerton, assisted by the Rev. T. Kelly, Vicar of Mapleton, Hull, uncle of the bride, and the Rev. Arthur Kelly, Curate of Wensley, brother of the bride, D'Arcy Bainbridge Carter, M.R.C.S., of Shipley, son of J. B. Carter, M.R.C.S., of Elm House, Chapel-Allerton, to Amy Georgiana, fourth daughter of the late Rev. W. Kelly, Vicar of Shipley.

DUNLOP—BEGBIE.—On the 8th July, at Loudoun, Dalby, Queensland, by the Rev. Dr. Nelson, grand-uncle of the bride, William Watson Dunlop, second son of John Dunlop, M.D., Glasgow, to Francis Dunlop, eldest daughter of Hugh Begbie, late of Edinburgh and Glasgow.

JAMES—DAVIS.—On the 18th inst., at the Parish Church, Killeagh, co. Cork, Charles Edward James, M.B., to Rebecca, eldest daughter of the late William Davis, Esq., of Killeagh House, Killeagh, co. Cork.

KENDALL—GATLEY.—On the 22nd inst., at St. Michael's, Folkestone, by the Rev. E. Husband, George Kendall, M.R.C.S., L.R.C.P.Lond., of Battle, to Ada Gatley, third daughter of the late James Clark Gatley, of Truro, Cornwall.

ORR—IHLER.—On the 16th inst., at St. James's Church, Belfast, Andrew Aylmer Orr, M.A., M.B.Oxon, to Matilda Amelia, youngest daughter of the late George James Ihler, of Rockfield, Gateacre, Liverpool.

SCOUGAL—HIRST.—On the 16th inst., at the Parish Church, New Mill, Yorks., by the Rev. H. J. Holmes, M.A., Vicar, Edward Fowler Scougal, M.B., C.M., Huddersfield, to Clara, younger daughter of the late Charles Hirst, of Birdsedge.

STEELL—DUNLOP.—On the 22nd inst., at St. Paul's, Withington, Manchester, by the Rev. Canon Lloyd, M.A., Vicar of Leesfield, Graham Steell, M.D., youngest son of Sir John Steell, Edinburgh, to Agnes Dunlop, eldest daughter of the late Rev. Thomas M'Kie Erskine, Renfrewshire.

DEATHS.

CLARKE.—On the 9th inst., at Bank House, Morley, near Leeds, Grace Marion, wife of J. C. Clarke, M.R.C.S., aged 46.

GAMGEE.—On the 18th inst., at his residence, Broad-street, Birmingham, after a short illness, Joseph Sampson Gamgee, M.R.C.S., F.R.S.E., in his 59th year.

HAYLE.—On the 17th inst., at The Crescent, Rochdale, Thomas Hayle, M.D., in his 78th year.

STEPHEN.—On the 11th inst., at Carlsbad, of cholelithæmia, William H. G. Stephen, M.B., C.M.Ed., M.R.C.S.Lond., youngest son of the late William Stephen, Inchbroom, Morayshire, aged 24.

WHISH.—On the 12th inst., at Boulogne-sur-Mer, France, Martin Samuel Whish, M.R.C.S., L.S.A., aged 27.

WOODMAN.—On the 18th inst., at Ramsgate, Samuel Woodman, J.P., M.D., F.R.C.S., aged 45.

WOODS.—On the 15th inst., Everard Woods, L.K.Q.C.P. and L.M.I., of the Great House, Leyton, Essex, aged 26.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, September 23rd, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 a.m.
Sept. 17	30·29	E.	57	52	105	70	49	...	Hazy
,, 18	30·16	E.	57	53	106	71	48	...	Hazy
,, 19	29·99	E.	58	55	92	69	50	...	Overcast
,, 20	29·98	E.	55	52	96	64	52	...	Cloudy
,, 21	29·87	N.E.	58	56	92	67	54	...	Overcast
,, 22	29·76	E.	54	51	96	64	50	...	Cloudy
,, 23	30·06	N.E.	49	47	98	58	46	...	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PRISON SURGEONS.

IN reply to correspondents who ask for information as to the mode in which appointments are obtained to the surgeoncy of prisons, we may say that application should be made to the Directors or Commissioners of Prisons, and the appointments are in the hands of the chairman, Sir Edmund Du Cane.

Belvedere Ivy.—The ordinary medical attendant should be consulted on the matter. We do not prescribe.

MEDICAL CLUBS AND FRIENDLY SOCIETIES.

To the Editor of THE LANCET.

SIR,—Industrial assurance companies and friendly societies are finding it a difficult matter to keep their business together now-a-days, and they have hit on a new expedient for securing and retaining members. Two companies to my knowledge are at present trying the experiment, which is as follows:—They are forming medical clubs in connexion with the insurance business, and offering the appointment of medical officer to the medical gentlemen who have a large club connexion in the several districts. The name of an insurance company sounds profitable, and in many cases the appointment is accepted—with what result? The doctor finds many of his private patients enticed into the new club (every member of which must, as a *sine qua non*, also become a member of the insurance company), and many of his club members transferred on the same conditions to the new club, and perhaps lost. In fact, the doctor is made an unconscious lever with which to raise insurance business.

I hope medical men will accept this warning.

I am, Sir, yours faithfully,

September, 1886. NOVUS HOMO.

"MASSACRE OF THE INNOCENTS."

To the Editor of THE LANCET.

SIR,—With reference to an annotation in your last issue (p. 547), headed as above, the only wonder to me is that more massacres are not brought to light, considering how easily the public obtain poison. At the commencement of the present month a mother brought one out of six of her children, all suffering from ringworm, to me. On my inquiry as to what she had done for it, she said she had painted it night and morning with a solution of corrosive sublimate, six grains to the ounce, which a chemist she knew had supplied her with without signing her name. This is only one of several cases that have been under my notice recently where deadly poisons had been used, where there is little doubt much simpler remedies would have availed.

I am, Sir, yours obediently,

Sept. 21st, 1886. PHYSICIAN.

AMBIGUOUS CHARITY.

THE other day a grand ball was given at the Hôtel Schweizerhof at Lucerne in aid of the sufferers from cholera in Italy. Several thousand francs, the proceeds of the entertainment, were handed over to the Italian Relief Committee, more, it is said, to the advantage of Switzerland than of Italy. In the words of an "Indignant Italian," the "impression is thus made general throughout Europe that Italy is sore stricken with cholera, and travellers are afraid to cross the Swiss frontier, to the serious detriment of Italian hotel-keepers and tradesmen, and to the corresponding gain of the astute Switzers, while the subalpine lakes from Lago Maggiore to Lago di Garda were never healthier or more attractive."

Nous Verrons.—While there is undoubtedly some hardship involved in the regulation to which our correspondent refers, it is very doubtful whether that could be obviated without inflicting a much greater injustice. The conditions of service of the two classes referred to are so essentially different as to vitiate any comparison of the regulations applicable to them.

Mr. H. M. Morgan (Lichfield) is thanked.

TONSILLITIS AND ITS RELATION TO SCARLATINA AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—Allow me to thank Dr. F. P. Atkinson for his comments upon my article on the above subject in your issue of July 31st. It is a subject in which, as is well known, he has taken especial interest.

Without attempting to discuss the questions involved, may I be allowed to add a few words by way of removing some misconceptions of my position? I do not assert anything as to the causes or nature of inflammations of the tonsils in general. There may be, and are, many different forms. I have merely singled out and described certain common forms of tonsillitis which have, as I think, a relation to scarlatina and diphtheria. Far from saying, then, that "tonsillitis is always the result of some scarlatinal or diphtheritic poison," my suggestion is that the forms in question are caused by a poison of the same class as those of scarlatina and diphtheria, but differing by its inability to infect the system. It is a question of terms whether you call such a poison "specific" or not. I should not, in strictness, call it so. A specific poison is that which produces a "species" of disease; and this dignity I would reserve to a disease which infects the system, running a definite course, and being communicable to a fresh subject. Some infectious sore-throats ("false diphtheria") are, indeed, communicable under some conditions, but they seem soon to lose this power; they correspond to a "specialised" disease, as the term was used by Mr. Hutchinson in his recent Lettsomian Lectures. That the tonsils, like other lymphatic organs, are liable to chronic enlargement in strumous constitutions is a fact of common observation, but it is in no way incompatible with the theory stated. Peyer's patches are often found enlarged at the autopsies of weakly children, but the inflammation of those glands which occurs in enteric fever is surely none the less due to a specific poison. That in their general pathology the tonsils are to be associated with the other lymphatic glands I fully believe. But it is a very remarkable circumstance that certain of these glands should be planted on the free surface of the alimentary canal, the tonsils above, Peyer's and the solitary glands below, and that it is these glands, thus apparently exposed to infection, which are the seat of the specific lesions of scarlatina, diphtheria, and enteric fever.

I am, Sir, yours truly,

Finsbury-circus, Sept. 13th, 1886. R. HINGSTON FOX.

VACCINATION IN WEST AFRICA.

To the Editor of THE LANCET.

SIR,—Your remarks about the faith of the natives of East Africa in vaccination are equally applicable to West Africa—at least, so far as the Gold Coast is concerned. On examining some 150 men of the Hausa constabulary, with a view to vaccinating them, I found that at least one-third of them had been vaccinated "in our country," which comprises a large tract, including Sokoto, Dagomba, Salaga, and other places but little known to Europeans. On one occasion one of these native vaccinators brought me three of his children to vaccinate, and intended taking them immediately into the interior as "sources of lymph." He, however, declined my offer of a few tubes, on the ground that the people in the interior would deem it "white man's fetish." Along the coast, however, where the native comes into immediate contact with the white man, this prejudice does not exist.

I am, Sir, yours faithfully

C. H. EYLES,
Assistant Surgeon, Gold Coast Colony.

New Hampton, Sept. 18th, 1886.

A DISCLAIMER.

To the Editor of THE LANCET.

SIR,—In your last issue there is reference to a Dr. Rugg, as issuing circulars of a highly objectionable nature. As the name is uncommon, therefore the more noticeable, allow me to say that neither I nor my son—a registered practitioner—has so far lost our self-respect as thus to dishonour the profession, and to bring our name into disrepute.

I am, Sir, your obedient servant,

Clapham-road, S.W., Sept. 20th, 1886. GEORGE PHILIP RUGG, M.D.

TERATOLOGY.

J. W. C. (Cork).—A more striking and, from the psychological point of view, more interesting monstrosity than the "two-headed nightingale," as the poor girl was called when exhibited in these islands some ten or twelve years ago, is described in the "Historia Rerum Scoticarum" of George Buchanan. In the reign of King James III. of Scotland there was born in that country, about the year 1460, a creature having the lower part of its body like that of a human being of the male sex, but from the umbilicus upwards having a double trunk, double head, double arms, each limb and organ in duplicate, and all quite normally developed. King James was much interested in this phenomenon, the more so as it showed much aptitude for education. He accordingly put it under suitable masters until, among other acquisitions, it became quite a proficient in music, for which it had all the taste of a born artist. It also learned to speak several languages, and as it had two wills or faculties of volition it would sometimes have a quarrel with itself, and argue the point in dispute *pro* and *con*. At other times, when both itselves were in agreement, it would discuss what was best for the common interest. There was this notable circumstance about it, moreover, that when the loins or the lower limbs—any part below the umbilicus, in fact—were hurt, both upper bodies were sensible of the pain. But if either body above the umbilicus were pinched or otherwise made to suffer one body only felt the lesion. The difference between the two was even more marked when death overtook one of the bodies. The survivor lived after the decease of its neighbour until decomposition began to show itself in the latter, and then it also gradually dwindled away. This took place in the administration of the Regent John, in the nonage of King James IV., about the year 1490, the monster having lived rather more than twenty-eight years. "Hac de re scribimus eo confidentius," says Buchanan, "quod adhuc supersunt homines honesti complures qui haec viderint." (On this phenomenon we write the more confidently as there are still alive a great many respectable individuals who actually saw what I have been describing.) Buchanan himself was born in 1506, and acted as tutor to King James VI. from 1565 till within a few months of his death in 1582. It was during the latter years of his life that he composed his great History of Scotland, in Latinity which was the envy of the Sorbonne.

Medicus.—The bromides seldom cause such symptoms; but the diseases for which they are prescribed are attended not unfrequently with vaso-motor symptoms.

F.R.C.S.—No special morbid appearances have been observed hitherto.

THE CLIMATE OF VENTNOR.

To the Editor of THE LANCET.

SIR,—Having read your able article in THE LANCET of August 28th relative to the climatic treatment of disease, I am anxious to remark on a passage in which you say: "Ventnor and Torquay are the mildest of the English resorts, but prove somewhat too relaxing for some constitutions." Now, although Ventnor and Torquay are almost identical as regards temperature, there is a vast difference in their relaxing influence, in consequence of the difference in the humidity of the atmosphere. I well remember an observation made many years ago by a physician who had resided at Torquay some years and then came to Ventnor, where he remained two years. In the course of conversation relative to the climatic influence of the two places he made the following striking observation—"that he existed at Torquay, while he lived at Ventnor." Ventnor as a place of residence on the south coast of England is far from relaxing, as the Undercliff, from its configuration, stands literally out at sea, the land trending sharply to the north at Bonchurch on the east, and the same at Blackgang on the west; and while it is comparatively warm in the winter, it is equally cool in the summer, from the constant influence of the sea-breeze.

My apology for addressing you is that I have taken interest in the meteorological observations of the Undercliff, and have continued the daily record first instituted by my brother, the late Dr. Martin, from 1839 to the present date, without the break of a single day, which can be said of very few places. The observations of the first forty years of the period were published by my nephew, Dr. Whitehead, on the occasion of the visit of the British Medical Association in 1881, of which I enclose a copy.

I have the honour to be, Sir, your obedient servant,

Ventnor, Aug. 30th, 1886. J. B. MARTIN, M.R.C.S.

"COCAINE IN GYNÆCOLOGICAL PRACTICE."

To the Editor of THE LANCET.

SIR,—Seeing an annotation in THE LANCET of Aug. 28th, p. 411, headed as above, could you spare me space to mention that I have seen cocaine used to painful vascular growths at the meatus with advantage by Dr. Oliver of Newcastle, and, I believe, others, with a certain amount of benefit, as a local anæsthetic. So that I believe Prof. Amann is by no means the first who has applied its use to gynæcology.

I am, Sir, yours truly,

Maidstone, Sept. 4th, 1886. PERCY T. ADAMS.

THE PROPOSED NATIONAL HOME FOR INVALIDS IN THE SOUTH.

To the Editor of THE LANCET.

SIR,—Two years ago, when I paid a visit to England for the purpose of visiting the hospitals there, my attention was in particular drawn to the Brompton Hospital for Consumption. Those who are suffering from that terrible disease and are excluded from other hospitals receive in this noble institution (supported chiefly by voluntary contributions) all the attention which skill and kindness can suggest. I next became acquainted with the hospital for consumptive patients at Ventnor (the originator of which, Dr. Arthur Hill Hassall, many have cause to bless), and here the good work for which it was erected is most successfully carried on. Whilst dwelling on what I had seen I was led to reflect how much greater good might be done if a similar institution could be established in a more suitable climate for patients of small means, or of none, suffering from consumption and other pulmonary diseases. I gave expression to my desire in a letter, inserted in *The Times* (Sept. 18th, 1884) and other English newspapers. The responses to this, containing promises of assistance and of subscriptions if the idea could be realised, were so encouraging that I have ever since been endeavouring to mature the plan by looking out for a suitable place for the erection of such a hospital.

As a physician with twelve years' practice on the Riviera, I have had under my care a very large number of patients suffering from consumption; and my experience has proved how very beneficial is the change of air, combined with proper diet, at the commencement of the disease. I therefore feel, as I am not aware that a like proposal has been previously made, that the time has arrived for me to appeal to the various Governments, clinical schools, benevolent societies, and all true philanthropists to aid me in rescuing from the terrible scourge of consumption the thousands who will otherwise, as hitherto, fall victims to it.

With regard to the following clauses—viz., (1) as to the necessity for such a home, (2) as to where it should be erected, (3) as to how it should be organised, (4) as to what sum should be collected before it can be started—a further pamphlet will shortly be published, a copy of which I will gladly send, free of cost, to all who may be interested in the undertaking. Any suggestions on the points mentioned will be heartily welcomed by

Yours obediently,

JOSEPH SCHNEER, M.D.

Alassio, Riviera di Ponente, Italy, September, 1886.

Justitia.—The Canadian qualifications are entitled to respect. But we do not consider that they fulfil the undertaking of the gentleman in this particular case. At present they are not registrable qualifications, and can only become so by the action of the Medical Council; and this is in the future.

HEREDITY IN THE LOWER ANIMALS.

To the Editor of THE LANCET.

SIR,—Possibly the following may be of sufficient interest to find a place in your columns.

A small, rough-coated cur bitch of mine had been taught to beg by turning round once or twice. At about fifteen months old she had a litter of six pups, and the only two of them which we know anything of turned round when begging before they were two months old. They did it when not served as soon as they wished, and it appeared quite spontaneously at first and indescribably curious, like a half-forgotten trick. I may say the mother was sent away from them too early to have taught them the trick—as soon, in fact, as they were fit to be left.

I am, Sir, yours obediently,

Kirkburton, Sept. 9th, 1886. GEORGE A. HAWKINS-AMBLER.

M.R.C.S., L.S.A.—In THE LANCET of April 8th, 1876, Dr. Ferrier recommended for the affection mentioned the use of a snuff composed as follows: Hydrochlorate of morphia, two grains; acacia powder, two drachms; trisnitrate of bismuth, six drachms; one quarter to a half to be used in the twenty-four hours. In a subsequent number Mr. Snagg, L.R.C.P., spoke highly of a combination of opium powder with compound tragacanth powder, in the proportion of one of the former to two of the latter, also to be employed as snuff.

"THE USE OF COCAINE IN CIRCUMCISION."

To the Editor of THE LANCET.

SIR,—I should think that every member of the profession is familiar with the fact that in the vast majority of cases of congenital phimosis the prepuce can be rendered retractable by dilatation; and a letter written for the purpose of pointing this out scarcely appears necessary. Amongst those who have been charged with the medical care of large numbers of young children there will probably be no doubt that a redundant prepuce, even if it can be retracted, is frequently a source of injury to its possessor.—I am, Sir, your obedient servant,

Inverness-terrace, Sept. 18th, 1886. GEOFFREY HETT.

Major St. H. de Estrangues.—1. No.—2. We have no special knowledge of the place.—3. The book named is, so far as we are aware, the only one published on the subject.

M.B.—The waters are most valuable in scrofulous diseases.

PROF. CHARCOT "AT HOME."

DR. KRAUS, editor of the *Allgemeine Wiener Med. Zeitung*, writes to that journal (Sept. 14th), from Paris, a letter, in the course of which he describes a visit paid to Prof. Charcot:—

> "My esteemed patron, Charcot, whose personal friendship I enjoy, had just returned from a holiday tour in Spain when I called upon him. Anyone entering the Palais Charcot, in the Boulevard St. Germain, fancies himself in an imperial residence; and, indeed, many a royal personage does not boast of such a palace as this. Charcot is admittedly not only the oracle of French physicians, but an authority upon medicine of the highest rank. We have so often touched upon the biography of this eminent scientist in our journal, and have told our readers so much of his insurpassable researches, that I need not now devote further words *ad majorem gloriam* of this eminent physician. Who is there among the ranks of medical practitioners who does not know Charcot and his imperishable work in the domain of cerebral disease, metallotherapy, &c.? I will not therefore to-day delineate him as the man of science, but as the Paris physician to whose tapestry-covered salon troops of patients make pilgrimage, and lay an obolus on the table, which groans under the weight of gold—from three to five to ten napoleons a consultation. How did I know all this if it were not that the pleasing testimony of this *aurea francogallica* practice lay piled up on the consultation table. To be sure, this modest, amiable, and highly humane French physician does not make a vain show of these offerings of esteem which his practice brings him; he simply has not time to place them under lock and ward, so rapidly does one patient press in after another. The consulting-room contains a magnificent library, which would be the envy of many a medical, Universität-Bibliothek; scarcely any important work of old and new medicine, home or foreign, is wanting. Charcot, the Nestor of French scientists, reads and speaks German, and my son and myself were delightedly surprised to see lying on the consultation table the *Allgemeine Wiener Med. Zeitung*, whilst on our entering he laughingly asked whether we knew that journal. Charcot gave us so much of his valuable time that we felt embarrassed, because we had seen what a crowd of patients still awaited his advice in the fairy-like salon. We were proud to secure a written souvenir from him, and a promise to send a paper to our journal. He asked after all his Vienna colleagues—Leidesdorf, Meynert, Benedikt, and proved how exceptionally conversant he is with Austrian and German medical literature."

Dr. Martin Oxley's note will appear in an early number.

AMBULANCE CLASS TEACHERS WANTED.

To the Editor of THE LANCET.

SIR,—I know of no class or profession more ready to do good than those whose work it is to cure or diminish the sufferings of mankind. I am sure, then, that the appeal I am about to make will meet with a generous response. Two years ago, at the annual gathering of the members of workmen's clubs affiliated to the Club and Institute Union, Lady Brassey earnestly invited them to form ambulance classes. In many of these clubs there is every disposition to follow this good advice, and I need not say what excellent results might be expected. The work in question would be doubly blessed—blessing those who learned to heal and the objects of their care. But the practical difficulty which has stood in the way is the necessary expense which attends all such undertakings. It is, of course, essential that the students should qualify themselves for certificates by passing the examinations organised by the St. John Ambulance Society. The small fee charged by that excellent Society for examinations many a club would be able to meet, and the Club Union will provide apparatus, books, &c. But very few of these institutions are able to provide the expense of a lecturer's fees; and this leads me to the object of my appeal. May I, then, ask any young medical practitioner not yet burdened by practice, or qualified medical student, willing to conduct one course of the required lectures at a workman's club in London to be so kind as to send his name and address to the Club Union Office. We desire to have a list of such generous friends, so that we may at any time provide any club which desires such services. Travelling expenses will, of course, be gladly paid by the club receiving this benefit. May I add, from a long experience, that those on whose behalf I write are always heartily grateful for any help of an educational kind. The lecturers will find intelligent and genial students; and I am quite sure that pleasant relations will be the result of such meetings between teachers and taught.

Any gentleman seeing this letter, and willing to act upon the suggestion which I have made, is requested to address: "Secretary, Workman's Club and Institute Union, 31, Southampton-street, Strand, London."

I am, Sir, yours faithfully,

September, 1886. HODGSON PRATT, President.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In my letter on "THE LANCET and the late Dr. Wakley" the word "great," before "dramatist," should have been *Greek*. I intended to refer to the fact that in the majority of Greek plays the deaths of the characters take place out of the sight of the audience. Unlike Mr. Augustus Harris—I hope Mr. Harris will not consider the comparison invidious—the Greek playwright had great faith in the imagination of mankind.

I am, Sir, yours truly,

Glasgow, Sept. 18th, 1886. ROBERT MACPHERSON.

Medical Diary for the ensuing Week.

Monday, September 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, September 28.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Wednesday, September 29

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.

Thursday, September 30.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M

Friday, October 1.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, October 2.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. A. M. Brown, London; Mr. F. C. Brett, Bridlington; Messrs. Christy and Co., London; Dr. Imlach, Liverpool; Dr. Logan, Ecclefechan; Mr. J. Loftus, Galway; Dott. G. Ricci, Rome; Mr. Jas. Oliver; Dr. John Clay, Birmingham; Mr. C. J. Smith, Brighton; Dr. Gramshaw, Gravesend; Mr. J. Thomas, Llanberis; Dr. H. Barnes, Carlisle; Dr. Taaffe, Brighton; Dr. Harkin, Belfast; Mr. C. H. Eyles, New Hampton; Mr. G. Tyrrell, Torquay; Dr. Patrick, Bolton; Dr. C. S. Taylor, London; Dr. Lupton, Liverpool; Dr. White, Wigton; Mr. J. Marshall, Dover; Mr. Butler-Smythe, London; Dr. Grimsdale, Liverpool; Brigade-Surgeon Curran; Mr. Thistle, Torquay; Dr. Squance, Sunderland; Mr. A. F. Clay, Birmingham; Dr. A. E. Gresham, Ontario, California; Mr. F. Benham, London; Mr. R. Grieve, Georgetown; Mr. McGill, Leeds; Dr. Stalker, Dundee; Mr. R. G. Style, London; Mr. Sherard, Paris; Dr. Macpherson, Glasgow; Dr. Martin Oxley, Liverpool; Dr. Boone, Shanghai; Dr. Porter Smith, Shepton Mallet; Mr. Gurney, Uppingham; Mr. Wills, London; Mr. Hodgson Pratt; Mr. Murphy, Sunderland; Dr. Morris, Spalding; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Hodgson, London; Mr. Pentland, Liverpool; Mr. Easterbrook, London; Mr. Tidman; Messrs. Morgan and Scott, London; Mr. Hewlett, Glasgow; Dr. Hayes; Mr. Fuge, Taunton; Mr. Carter, Glasgow; Mr. Vinrace, London; Messrs. Street Bros., London; Dr. Barr, Glasgow; Messrs. Barnes and Co., New York; Mr. Brown, Highbury; Mr. Procter, Shifnal; Mr. Harrison, Liverpool; Mr. Barnasconi, Plymouth; Dr. Cambridge, Illinois; Mr. Gravatt, London; Mr. Moore, Uxbridge; Mr. Richardson, Burton-on-Trent; Mr. Mason, London; Mr. White, Bayswater; Mr. Norcot, Bordeaux; Mr. Knightley, London; Mr. D'Orsey; Messrs. Milne and Son, Edinburgh; Dr. Scougal, Edinburgh; Messrs. Burgoyne and Co., London; Mr. Birchall, Liverpool; Messrs. Smith, Elder, and Co.; Mr. Tunmer, Harrogate; Mr. Dawber, Llanfair; Mr. Thomas, Llanelly; Mr. Watson, London; Dr. Reid, Stafford; Mr. Norton, London; Vigilans; Fremdling; Nurse Hunt, Newcastle-on-Tyne Beta; Physician; Ignoramus; X. P.; Justitia; Cinque Ports; Nous Verrons; M.D., London; M.R.C.S.E., London; G. F.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Beale, London; Dr. McClure, Cromer; Dr. Taylor, Sutton; Messrs. Keith and Co., Edinburgh; Mr. Wood, York; Dr. Eberle, Thirsk; Mr. Dean, Northleach; Dr. Newell, Macclesfield; Mr. Bird, Penarth; Mr. J. Carter, London; Mrs. Bedingfeld, London; Miss Grace, Barrow-in-Furness; Mr. Welbeck, London; Dr. Scilly, Wanganui; Miss Jones, Newark; Mr. Rideal, London; Mr. Griffiths, Lincoln; Mr. Marshall, Huddersfield; Mrs. Muggeridge, Lewisham; Mr. Truman; Dr. Taylor, Notts; Mr. Crawford, Harrogate; Mr. Lomas, Territer; Mr. Hume, Edinburgh; Col. Burnand, Worthing; Mrs. Carter, Leeds; Mr. Abbs, Huddersfield; Mr. Finlay, Walsall; Mr. Niven, Oldham; Dr. Waller, Peterboro'; Mr. Edwards, Buntingford; Mrs. Smith, Gt. Yarmouth; Mr. Furneaux, Shanklyn; Mr. Squary, Liverpool; Messrs. Twiss and Son, Ilfracombe; Mrs. Taylor, Barnsbury; Mrs. Woodberry; Bishop of Peterborough; Mr. Morgan, Islington; Messrs. Sandall and Co., London; Mr. Nadin, Sheffield; Messrs. Cassell and Co., London; Mr. Wheeler, Manchester; Mr. Clarke, Morley; Mr. Jeffries, Chesterfield; Mr. Brennan, Lubbercurry; Linum; M. N. O.; Spes; X. Y. Z. Matron, London; Phalanx, Manchester; W. O. M.; Medicus, Stoke Newington; M.D., Bonchurch; Box, Uttoxeter; Zeta; Matron, Bedford; Alpha, Lambeth; Sanitas, Manchester; Surgeon, Cavan; X., Bury; M.R.C.S., Wimbledon; M.B., St. Helens; Hants; T. B., North Curry; H. S.; P. W., Hammersmith; Midlands; F.R.C.S., Shepherd's Bush; L. M.; Perdix; A. B.; X., Shepherd's Bush; M.D., Upper Tooting; T. H. Northleach; Sigma, Upper Tooting; M.B., Wood Green; B. L.; W. T. H., Tottenham; J. G. R.; Bona Fide, Liverpool.

Liverpool Courier, Georgetown Daily Chronicle, Isle of Man Times, Brewers Guardian, West Cumberland Times, &c., have been received.

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